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A LECTURE ON MUSCULAR ACTION,

DELIVERED BY
MR. SHELDRAKE.

As all the diseases, distortions, or defects, which it is now proposed to cure, to correct, or to alleviate, are believed to originate in a derangement of the natural muscular action; and as it is now proposed to remedy those defects, by restoring that action to its natural course; it is proper to begin by endeavouring, at least, to discover what muscular action is.

It is a remarkable fact, that there is not a living being in whose body the most wonderful actions are not continually going on, "*palpable to feeling as to sight*;" yet none have taken the trouble to ascertain what they are, or how their visible effects are produced. Those whose lives are supported by these very actions, do not seem to know that they exist; and the learned, whose province it is presumed to be, have made no rational investigation on the subject, at least none that I have been able to discover. This being the case, it remains one important subject for investigation that is still untouched. As it lies directly in my way, in that course which I have pursued, I shall, perhaps, be excused for attempting to examine it; certain, that if I produce no information myself, I shall afford an opportunity to some who may be better qualified to correct me, and to produce that information which I may not be able to communicate.

Muscular action, if it can be arranged in a manner similar to that in which Nature has arranged the muscles by which its effects are produced, may be placed in two divisions, first, muscles, whose action is involuntary; and, second, muscles whose actions are subject to the will of the animal in whose body they exist.

Of the first, the chief are the muscles of the heart; their actions seem to

depend upon their containing within them; selves the principles of action, which in them are equal and opposite to each other. These muscles are thrown into action the instant the heart begins to live; they grow with its growth, and strengthen with its strength, so long as the animal of which they form a part continues in health; their action diminishes in regularity as health decreases, and finally ceases with the extinction of life. What the wonderful power is, by which these effects are produced will, in all probability, never be known by any living being; at all events it is not intended, in this investigation, to enter into the inquiry.

There are four conditions or states of the muscles, which it will be proper to understand, and, so far as it may be done, to explain:—

First, the state of absolute rest; as when a person lies down in a horizontal position to sleep, or to remain in any other state of positive inactivity. When the muscles are in this state, every voluntary action ceases, and nothing goes on but the circulation of the blood, and such other functions as are necessary to continue life in the body. If, when a man lies in a sound sleep, you raise his hand, or any other member, the instant you let it out of your hand, it falls as if it were lifeless. If a man who is fast asleep could, without disturbing him, be raised and set upright upon his feet, the instant you let him go, he would fall to the ground as if he were dead. Sleep is, indeed, the perfect image of death.

The second state of muscular action, is what I shall venture to call positive muscular action, of which I will give this one example. When the anchor-smith raises his hammer, whirls it round his head till it has acquired its full power, and then strikes it upon the hot iron with all his force, he is in *positive action*. The experience of every one will enable him to recollect many examples of the same condition of the muscles. The third condition of the muscles is that which exists while the muscles are passing from the state of action to a state of rest, or *vice versa*; it is the most fugitive or versatile of any, and can only be perceived

in the action of any muscles, during the brief time of their progress from the state of action to the state of rest.

The fourth condition or state of the muscles I shall venture to call suspended, or regulated, muscular tension or action; although it is the most important of all the conditions in which living muscles exist, no writer that I know of, has taken the least notice of it; it has fallen to my lot to be the first to offer it to notice, and attempt to explain its properties; I trust that, if in so doing I should fall into some errors, I shall be excused, from the novelty of the subject, and if any one will suggest a more appropriate title for that condition of the living muscles, which I shall endeavour to describe, I shall willingly withdraw that which I have given, to substitute a better in its stead.

If a strong man grasps any thing firmly in his hand, all the muscles of his arm become very firm while he holds it fast, but he cannot hold it so long; if he attempted to do so, some of the muscular fibres would relax, others would follow, a tremulous motion would appear in the arm; that motion would increase till, in the end, the muscles would become quite relaxed, and the object that had been held would fall to the ground. If the man who held it was determined to maintain his grasp as long as possible, he would grasp it again when he found his hand giving way; this action would be frequently repeated, each time weaker than that which preceded it, till, at last, the hand would quite lose its power of holding the object, and it would fall to the ground. It is quite impossible that any muscles should maintain themselves in any one action for any length of time, without varying its application, so as to renew their strength; this is the first principle upon which all muscular action depends.

It is recorded of the Crotonian athlete, Milo, that so great was his strength, that he would stand upon a metal shield which had been plentifully covered with grease, with such firmness, that he successfully resisted the efforts that were made by several strong men to push or to pull him from the station on which he had fixed himself. This is, of course, a fable; but, like most of the Grecian fables, it was made to explain, enigmatically, a fact. The Grecians knew more of the action of muscles, in all the exercises in which they passed their lives, than has been known by any people who have existed since their days; and their invention of this story of Milo, proves they knew that this principle, which I have called regulated muscular tension, was either itself muscular strength, or one of the principal causes of it.

We may bring this subject still more

within our own knowledge. If we were to take a strong young man, of given size and weight,—a feeble old man, whose size and weight should be the same,—and a statue, or even a dead and stiff corpse, whose size and weight were equal to those of the others,—and place these different objects quite erect in the same position, then push the dead figure with as little force as will derange the equilibrium in which it is placed, and it will fall to the ground; a gentle push will throw down the feeble old man; but it will require great exertion to overthrow the very strong man. Why are these things so? What is this principle, which, acting upon matter, counteracts the immutable laws of gravity? It is not, itself, matter, for it has no weight. If a man were weighed, immediately killed by suffocation, and weighed again, he would be found to weigh more, after he was dead, than he did when he was alive; yet it is something that is abstracted from the living body when death takes place; for it is a well-known fact, that, if a weight is suspended to one or more dead muscles, that weight would tear those muscles to pieces, which, when they were alive, would have borne it without inconvenience.

This principle is certainly something that connects the mind with the body, at the same time that it exists independent of either, when under peculiar circumstances; for example, when some parts of a body become diseased, or deranged by many accidents, the mind cannot exert its influence to bring those parts into action, however desirous the person may be to do so. It is not, itself, life, for life often exists in parts of a body for many years, without the sufferer having the least power to bring those parts into action, although he may have the strongest desire to do so; but the most extraordinary of all the proofs that this principle is something distinct from mind and from matter, is that which was mentioned by John Hunter. He said, "That when muscles had, to all appearance, lost all their power of voluntary action, he had often restored that power, by forcing them, for a length of time, to act by means of an assistant, in the same way that they would act if they had their natural power." This very extraordinary fact was mentioned by Mr. Hunter, as having been proved many times within his own knowledge; and the impression his information made upon my mind first led me into these investigations, and has produced important proofs of its success, which must put an end to all doubts of the reality of the fact, as well as of its importance.

Having established the reality of regulated muscular tension, as an abstract principle, it will be proper to mention some

proofs of it that may be entitled to observation.

First. When a man is going to run a race, he stands prepared at the starting-post, and looking earnestly for the signal, which, being given, he dashes off instantly, and does not lose a moment till he arrives at the goal. He has placed himself in a proper position; his muscles were so far braced up, and kept in the proper state for action, that, upon receiving the signal, he had only to dart his will into them,—if I may be allowed to use the expression,—to set off without loss of time, and proceed till he had arrived at the end of his course. The practice which had qualified this man for his race, had taught him to know the exact state in which every muscle should be kept, that it might be instantly used to the best advantage.

Second. Two wrestlers engage in a contest; they stand up to, and grasp, each other; all their muscles are kept in that state of tension that I have endeavoured to describe; they attempt, by almost imperceptible degrees, to feel each other's strength, till one, finding his opportunity, by a violent and unexpected exertion, gives his opponent a fall.

Again. Two pugilists engage in a contest; they stand up to each other—each, in his own attitude, is, in all respects, prepared to give, or to avoid, a blow. This is regulated muscular tension, by which every muscle that exists in the two combatants is kept in a state of preparation to act with all possible velocity, in whatever manner the will directs: he watches for his opportunity, and, so soon as he sees it, puts in his blow. That is the *action*; all the rest was preparation to act.

Many other examples might be mentioned, to show the reality of this principle of regulated muscular tension; but those which have been described will be sufficient. I shall now endeavour to show its importance in all actions of the human body, and its importance in creating defects when it is deficient, and in removing those defects when that deficiency is supplied.

When, in the earliest stages of life, children make their first attempts at locomotion, those attempts are but momentary; whether they are, or are not, successful in their attempt, they immediately sink into a quiescent state, till they have recovered from the fatigue which the attempt has occasioned; they repeat the attempt, or engage in others; and thus proceed, increasing their powers by repeating their attempts.

It was a favourite expression with Mr. Hunter, that muscular motion increases muscular strength. This is saying, in other words, that performing any action produces strength, which enables the party to repeat. This is true to a certain extent, and no

more; for, if any muscular action is too frequently repeated, debility is produced, and injury sustained. Hence it is evident, that it is sometimes necessary, and always advisable, that, when young people are employed in exercises that are intended to improve their health, or produce any other specific effect, they should be superintended by some one who is, from actual knowledge, competent to teach and advise them what to do, and what to avoid.

In the ordinary occupations of life, this is not the case. The son of a labouring artisan follows the same occupation as his father; by degrees he becomes acquainted with the tools and practices of his father, grows up in the use of them, acquires his habits, and becomes possessed, at last, of all the peculiarities of his class.

The son of a cottager, is, soon after he can stand, set to drive sparrows from the corn, then to attend the horses at plough; he at last follows the plough, and becomes a ploughman himself, with all the same peculiarities that attend the other individuals of his class.

But the case is very different with the children of gentlemen: it is expected, and justly, that they shall have none of the peculiarities, either of person or manner, that necessarily, and almost naturally, attach to the children of the lower orders; that they should have every perfection of person and manner that the best instruction can convey. Where so much is expected, the system of instruction should be begun at the very earliest period of their lives, before they have any opportunity of learning anything that it will afterwards be necessary for them to unlearn.

To promote this object, I have, in the preceding lecture, laid down a system of treatment, that, if strictly followed, will prevent the accession of those peculiarities which, in consequence of negligence, is productive of serious injury in early life. As the rules which are there laid down were extended for the use of persons who are not professional, I have avoided all technicalities in the rules that have been given; but it is to be presumed that there are other cases of similar nature, in which the attention will be more strictly professional; to meet these I shall now give the details of treatment that will be quite intelligible to professional men.

I must premise that an erroneous opinion has very generally received more attention than it deserves, because it has been attributed to Mr. Hunter. He is reported to have said, "I am convinced that people get awry by the endeavours of parents to keep them straight; that parents were continually watching their children, and making them sit in a particular attitude, and that these

children so watched, when unobserved, would naturally sink into another way of sitting to have a little ease. Besides, *that is keeping in action one set of muscles, and not allowing the other to act at all, whereas, every set of muscles should be kept in action.*" He said "you don't see boys grow awry anything like so often as girls, nor yet girls in a low situation in life."

Again, Mr. Hunter said, "If it be necessary, from fashion and so on, to carry the person in any particular manner, this habit may be attained at any period of life, and quoted this instance: you see a ploughboy, while plodding at the plough, an awkward fellow; but he enlists; then he is put under a drill sergeant; and then observe with what care and precision he marches, after he has been under the care of that sergeant for a time. Now this shows that, if the body is well-formed, it may carry any fashion, but there is certainly no counter-acting nature."

Mr. Hunter said, "you should dress your children lightly and loosely, let them run about and exercise all their muscles equally, and then they would not grow awry. To this parents have a sort of objection: which is, that children will grow round shouldered, and so on. Now I have endeavoured to refute that absurdity, by saying, that if children were suffered and allowed to do as they please, the body would be formed according to that pattern which nature designed it should be."

I have placed these opinions together, because they were the opinions of Mr. Hunter, and, as such, are entitled to much respect. Trusting to my own memory for correctly remembering these opinions, as I heard him deliver them, I think there were shades of distinction between his real opinions, and what are here given as such; yet, with this abatement, they may be taken as the best opinions that were entertained upon these subjects in those days.

That the drill-sergeants, in Mr. Hunter's time, frequently transformed very awkward, clumsy, and even stupid, clowns, into smart, active, and clever soldiers, is undoubtedly true, and proves that the opinion of those who say that such defects cannot be cured even after the patients have arrived at maturity, is erroneous. In those days I passed much of my time on the south side of St. James's Park, where I gained both knowledge and amusement, by observing the effects that were produced by forcing military knowledge into raw recruits.

However awkward, clumsy, or ill-formed, the recruit might be, there was but one process used to convert him into a well-made active soldier: the mode of conducting that process might vary according to circumstances when it was applied to differ-

ent men, but its essential qualities were, in every case, the same; that was, to force or strain himself by whatever exertion it might be necessary for him to make, till he had twisted himself into that shape and position which his sergeant determined that he should assume; a task which was very difficult, and attended with great pain and difficulty to the unfortunate recruit. I have seen a man undergoing this discipline roaring with pain, like an unfortunate child that had been severely beaten. Yet I always saw that the sergeant was victorious, and converted his pupil into an effective soldier; his recipe was infallible; it was punishment, or, at least, the fear of it. The recruit knew full well that if he did not do what he was directed to perform, he would certainly be punished according as he was deficient, and the business did not end here; for, if he again failed in executing the required manœuvre, he would be again punished, and so on, till he did execute what was required of him: this was an infallible method of fixing knowledge in the minds of those who were obliged to learn; but as it cannot be applied to the sons or daughters of gentlemen, it cannot be of the least use on the occasions that we are now contemplating.

Mr. Hunter's opinion, that "if it be necessary, from fashion, and so on, to carry the person in any particular manner, this habit may be attained at any period of life," if it be true, it is only in a very limited sense, and the circumstance that he mentions to prove the correctness of his opinion directly proves its fallacy; I mean the effect that is produced by the drill-sergeant, who transforms awkward countrymen into clever soldiers; and, as the investigation of this opinion will lead to a knowledge of the facts which ought to be understood, I trust that I shall be excused for employing some time in the investigation.

During, and after the time of the riots in and after the year 1780, and during the revolutionary war, volunteer corps were formed throughout the country: men of every rank, from the highest to the lowest, were engaged in them, and were instructed in military manœuvres by the same sergeants who drilled the military recruits. All these persons performed their military duty well, and it need not be doubted that, if they had been called into action, they would have performed their duty as became high-spirited Britons; they were drilled with as much care as the military recruits, and executed their military manœuvres in a becoming manner, but this was the full extent of their qualifications: when they laid aside the military dress, they laid aside every military air at the same time, and returned to their several occupations

without showing a particle of any quality which indicated that they had ever been instructed in anything beyond the occupations in which they passed their lives.

I can carry this proof one step further. I was acquainted with a gentleman of that rank which enabled him to pass a great portion of his time in the sports of the field, and in all the exercises that can be used by gentlemen of his rank, he acquired the highest degree of personal prowess. This gentleman became a member of the most respectable volunteer corps in the metropolis; he was fond of the pursuit, paid great attention to his exercises, and piqued himself upon being the best drilled soldier of his corps; this did not content him, but he aspired to a higher reputation; he determined to be a soldier indeed! he had been instructed in his military exercises by a sergeant in the guards, whose regiment was to be reviewed by the king at Wimbledon: he bribed this man to put him in the ranks, instead of a private who was clandestinely put aside for that purpose. This was a service of danger to all parties, but all-powerful money induced the men to execute it. The gentleman was accoutred in the uniform and arms of the soldier who had been surreptitiously put aside to make way for him; he marched to Wimbledon, did the duty of the day with the regiment, marched back again, and was radically cured of all desire to be a soldier.

He has often declared since, that, in all his volunteering experience, and every other fatigue that he had suffered in the course of his life, nothing could equal what he suffered in the course of that day, nor could any thing but his experience have induced him to believe that his sufferings could have been so great. Yet, if circumstances could have compelled him to become a real soldier, practice would have enabled him to go through those fatigues just as easily as by any other man.

The fallacy of Mr. Hunter's opinion seems to have been this: he saw that the strong arms of necessity and power compelled the most awkward of men to transform themselves into the most active, and, so far as personal exercises may go, the most accomplished; and, having seen this, he assumed that *therefore* those who had no motive to stimulate them to exertion but caprice, could easily produce similar alterations in their own persons. The fallacy must be felt as soon as it is mentioned.

The soldier is, I believe, the only member of civilised society who relinquishes all the habits that he had practised from his earliest infancy, till they become, in ordinary language, quite natural; to enter into a state so different, that he has every thing to learn, even to the least motion of every

part of his body, before he is able to act in his new situation; and when he is able to do so, he is required, constantly, to perform the duties of his new station regularly and constantly for the rest of his life, so that he becomes, to all intents and purposes, a new and an artificial animal.

This being the case, it becomes a legitimate object of curiosity to inquire, by what means this change is produced; and of real utility, if the means that are used to produce these changes in him can, in any way, be rendered serviceable to others.

The first part of the recruit's education consists in breaking down all the awkward habits that he had acquired during his former life, and a most serious operation this frequently is, particularly if he have arrived at manhood, and perhaps advanced some way into that state.

When he begins to learn the new part of his duty, he is first made to stand quite upright, with his arms, thighs, and legs, quite straight, *but not stiff*; this is, to many, a matter of great difficulty, and they suffer severe pain from the exertions they are forced to make, till they acquire the power to use their limbs in the way that military duty requires that they should use them; at last, however, by whatever means or exertions they are enabled to acquire it, the power that is required is attained.

He is then directed to move all, or any of his limbs, in the manner and the direction that he is ordered; this must be done by his own exertion; this process is at first extremely painful. When, by this process, he is enabled to perform by himself all the various movements of the body, and all its members, together or separate, as they are required to be performed in military duty, he is placed in a rank with a few men who are in the same state of forwardness as himself; this set is then made to perform the same movements and manœuvres together, till they can do so with precision.

When this small number is made to act together with uniformity and precision, larger numbers are combined in the same manner, till a company, a regiment, or even a larger number of soldiers, is made to act together as if they were but one man.

Whoever will examine a body of soldiers, when practising their military exercises, will perceive, that each man stands firm upon his feet, his body resting firmly upon the pelvis, and quite erect, without being stiff, so that he moves either leg freely, without making any motion with his body, however fast he may walk or run; every limb, every muscle, is kept in such a state of preparation, that every man, having his eyes fixed upon the person who gives the signal; the instant it is given, the whole body performs the act that is required in the same

instant of time. This can only be performed by keeping every muscle in that state of preparation that I have called regulated muscular tension; it is not a state of rest—it is not a state of action,—but it is a state in which they are ready to act in any manner, the instant they are directed to do so by the will of the being that governs the body of which they form a part.

Whoever will carefully examine a regiment, a company, or a smaller number of soldiers, who are performing their military duties, will perceive that they stand firmly, but not stiffly, fixed in the same attitude, for any length of time that may be required, but that they change that attitude to any other the instant they are directed to do so: the power of doing this has become easy, or what is called natural, to them by long practice, and remains with them for life. If the first line of a military body, to whatever length it may extend, and which is the only part that can be distinctly seen, be carefully examined, it will be seen that the body of every man is firmly fixed on the pelvis, and all the other members are connected with the body in the same way; that this steadiness in the position of each man gives to the whole line, or body, the same steadiness that it would have if it were one solid mass; under that mass, the legs of all the men move with perfect freedom; the right legs of all the men move directly forward at the same instant of time, and plant themselves in advance, bearing the bodies upon them; the left legs of all are then projected forward in the same manner; the legs thus move on alternately, but the bodies of the whole corps are carried forward, as if they were one inseparable mass.

If we turn from the whole corps to any one man, say a sentinel on duty for his two hours, he marches backwards and forwards incessantly during that time. No motion in the pelvis; the body, the head, and all the arms which the service require him to bear, are carried with ease in their proper bearings upon the pelvis, while his legs move in perfect freedom beneath them, as if they had no weight to carry. If our sentinel grounds his arms, and moves into the street as an ordinary man, he carries this easy action with him, because it is become familiar; he walks in the same manner as he did when he was on duty, and even without the consciousness of doing so. He, in all probability, suffered severely from the discipline he had gone through in training, but its effect has been produced, and he thinks of it no more, but contentedly enjoys the advantages it has procured him. I have often observed, with much pleasure, men of the handsomest figure walking the

streets in a very elegant manner, although in the dress of common soldiers.

When Mr. Hunter said, that particular habits might be attained at any period of life, and mentioned the drilling common soldiers as a case to show the truth of his assertion, although that assertion and its confirmatory fact are true to the letter, no practical inference can be drawn from them, as applicable to practice in private life; first, because the discipline by which the persons of soldiers are improved is so severe, that, in private life, no individual would subject himself or his children to it, for any advantage which they might hope to obtain by the adoption; and, second, if they did gain any advantage by the practice, they would not long retain it. The military duty which soldiers are required to perform daily, preserves to them the advantages they had gained, or, at least, it will preserve it so long as they continue in active service; that is, a great part of their future lives; and when, at last, old age does compel them to retire, the exercises which they have uniformly practised through life, leave them, though in ruins, with a degree of strength, and its good effects, much greater than are enjoyed by any other men of the same age.

The habits of private life, the carelessness, or the careflessness, with which the serious affairs of the world are followed, will equally induce the neglect, the disuse, and the total abandonment of any personal advantage that has been recently obtained, and may, therefore, be easily lost.

But, putting all attention to the technicalities out of the question, there is one practice of military education that highly deserves to be imitated in every department of life, where any education is to be given. At the Military School at Chelsea, which has been established to educate the children of soldiers, they are taken in at a very early period of life, kept, and educated, in every respect, in a manner becoming the situation from which they sprang, and that in which, in all probability, they will pass their lives. From the earliest period of their entrance into the school, they are taught the military exercises, under the direction of teachers who are as well qualified for the task as the army can supply. When these children leave the school, I believe they are at liberty to choose their own future occupation, but the greater part of them pass into the army, at first as privates, and become non-commissioned officers, as opportunities to promote them offer. The consequence of this proceeding is, that such recruits, if they may be so called, learn the practice of all military duties so early in life, that they never know the miseries of drilling in the Bird-cage Walk; they have no im-

proper habits to *unlearn*; they learn, by degrees, what is proper; it is little, if any, inconvenience for them to retain what they have learned; they proceed from one point of knowledge to another, so that they enter into life as complete soldiers, without having had much trouble, and no pain at all, in learning to become so. They are better soldiers than any of those who do not become soldiers until later periods of their lives; they are better formed, both in body and mind, for the execution of their duties, and certainly have raised the reputation and good qualities of their own class to a much higher level than was occupied by persons of the same class half a century ago.

It is the adoption of the *principle*, by which this improvement has been effected in the persons of military men, and the modification of that principle, in the personal exercises of children in the superior ranks of society, that I would universally recommend.

FOREIGN DEPARTMENT.

M. MAGENDIE AND HIS DISCOVERIES.

It cannot be denied, that M. Magendie has some merits as a physiologist; we have, however, no hesitation in asserting, that they have been greatly exaggerated, and whoever calls him, as French writers often do, the founder of experimental physiology, shows how little he knows of one of the greatest physiologists that ever lived—of Haller—towards whom we should be guilty of injustice, if we thought for a moment of comparing him with M. Magendie. Although we are not inclined to agree in opinion with those who deem all experiments on living animals unjustifiable, we cannot but consider the charge of cruelty, which has been so often brought against M. Magendie, in some degree well founded, as such experiments should never be undertaken unless by an accurate observer, and with a *reasonable* prospect of enlarging our sphere of knowledge. In this respect, what a difference is there between the Swiss physiologist and the French experimentalist! On the one side, a decided talent for observation, clear and comprehensive reasoning, ingenuity and scrupulous accuracy; and, on the other, superficiality, premature conclusions, and extravagant speculation! Boldness is, indeed, the most striking feature of M. Magendie's experiments, and is, we are convinced, the only quality which has procured for him a short-lived reputation.

The following extract, from a Memoir of M. Magendie, on the Brain, will show how

little he is qualified for an experimenter, and perhaps serve to caution our readers, in future, against placing too much reliance on such an authority.

M. Magendie is speaking of the cephalo-spinal fluid, the quantity of which is said to amount to three ounces, but not unfrequently, especially in old persons, to twice as much; it surrounds the brain and spinal chord in strata of different thickness, and thus forms, he says, a strong objection against the system of phrenology. (!) This action is, however, only mechanical, and M. Magendie was desirous of determining its influence on the vital functions. For this purpose the following experiments were made:—In an old fox, a puncture was made in the basis of the occiput, by which the fluid was evacuated in a few seconds. The effect which ensued was very striking; the animal, which before had been very savage, suddenly became quiet and motionless; it continued in this state for thirty-six hours, after which it was as lively as before the experiment. Another puncture was now made, by which it appeared that the fluid had been completely restored. "This experiment," M. Magendie continues, "which I have repeated in different ways, shows not only that the cephalo-spinal fluid exercises a great influence on the motion and instinct of animals, but also, that it is very easily regenerated."

"But," our philosopher exclaims, "does it act only mechanically? and do not its chemical properties also influence its action? To solve this new question, I extracted the cephalo-spinal fluid of an animal, and then supplied its place with distilled water of the same quantity and temperature; to my surprise, the animal fell into an extreme agitation, its movements became convulsive, and it seemed to have lost its natural instinct and habits."

"In order to determine whether the temperature of the fluid has any effect on the functions of the nervous system, after having evacuated it, I suffered it to cool, and then re-introduced it into the skull. The animal was immediately seized with a trembling, analogous to that in the cold stage of ague, and this experiment appears to me to throw some light on the cause of shivering and trembling in intermittents." We congratulate M. Magendie upon this ingenious conjecture.

It having thus been clearly proved, that the cephalo-spinal fluid acts on the nervous system, not only by its mechanical contact with the brain and the spinal chord, but also by its chemical properties and temperature, M. Magendie begins to study its effect on the intellectual faculties. He gives a very superficial description of the brain, and finds it interesting that the old names of some of its parts apparently refer to *hydraulic func-*

tions. "There is" he says, "an aqueduct and a valve, an infundibulum, and a bridge! What system was it that created these names? We are not acquainted with it; our present anatomists do not admit of the existence of a fluid in the cavities, or on the surface of the brain; and whenever we find, as we always do, the ventricles filled with water, it is looked upon as a morbid production. My inquiries concerning the cephalo-spinal fluid have led me to a contrary opinion, and no sooner had I begun to consider the liquid in the ventricles as a natural production, than I was convinced of its being identical with the cephalo-spinal fluid. To confirm this conjecture, I was forced to assume an opening, by which the surface of the brain communicates with its cavities, but *no such opening is known*, nor could I imagine that it had escaped the notice of modern anatomists."

So little is M. Magendie acquainted with the anatomy of the brain, that we really do not know which to admire most, his ignorance, or the happy self-complacency with which he writes on subjects of which he knows so little. It is universally known, that there is an aperture by which the internal cavities of the brain communicate with its external surface, viz. the fissure of Bichât, through which the *arachnoid* passes to line the ventricles.

"I did not, however, despair of finding such an opening, and actually discovered it at last, of two or three lines in diameter, covered by a lobe of the cerebellum. This discovery gave me at once the key to the hydraulic nomenclature of the ancients. I saw that it simply designated the action of the different parts of the brain; the *valvula cerebri*, is, in fact, to be considered as a valve; the aqueduct carries the cephalo-spinal fluid into the third ventricle, the infundibulum into the pituitary gland, &c. The fluid is, moreover, in a continued movement, a sort of flux and reflux, under the influence of respiration; during inspiration, it is carried from the cerebral cavities into the spinal canal," &c.

"By my researches on the movement of the fluid through the aqueduct, I was led to the most probable use of the pineal gland. I consider it as a sort of stopper (*tampon*),

* This might seem almost incredible to our readers, and we give, therefore, M. Magendie's own words:—"On conçoit, que pour confirmer cette conjecture, il fallait absolument, qu'il existât une ouverture, par laquelle il y eût communication entre l'extérieur de l'organe et ses cavités, et cependant cette ouverture n'étoit point connue. Comment avoit elle échappé aux nombreux investigateurs modernes du cerveau?"—*Jour. de Phys.*, vol. viii. p. 222.

destined to open and to close the aqueduct, over the anterior opening of which it is situated; the two large veins to which it is attached being sometimes empty, sometimes full, will accordingly exert more or less pressure on the gland, and thus open or close the entrance into the aqueduct; violent passions, screaming, and strong exertions, will, of course, produce the latter effect.

"As to the influence which the cephalo-spinal fluid has on the intellectual faculties, my observations in the *Salpêtrière* have led me to the following results:—In cases of idiotism, which has not existed from birth, the fluid on the surface and in the cavities of the brain is much increased in quantity; the ventricles are distended, the pineal gland is pushed from its natural position, so that it can no longer perform its function, and the aqueduct is always considerably dilated. In maniacs, the fluid is also increased in quantity; here it is scarcely ever found on the surface of the brain, but only in the ventricles. In persons who die in the full exercise of their intellectual faculties, the fluid in the ventricles often amounts to no more than an ounce.

"It seems then established, that the development of the intellectual faculties is in an inverse ratio with the quantity of the cephalo-spinal fluid."

We leave it to the reader's judgment, whether, after such a specimen of want of anatomical knowledge, of carelessness, and ill-founded self-confidence in M. Magendie, any great reliance can be placed in the experiments of this physiologist, or the conclusions which he draws from them.

CASES OF INTERMITTENT FEVER, IN WHICH BLEEDING WAS EMPLOYED IN THE COLD STAGE.

By JOHN MACKINTOSH, M.D., Lecturer on the Practice of Physic, &c., in Edinburgh.*

(Continued from page 17.)

CASE 9.—A woman, 27 years of age, the mother of several children, experienced repeated paroxysms of irregular intermittent for several months, till at last her general health became much impaired under the disease in the tertian form. She was

* Dr. Mackintosh takes this opportunity of informing those Gentlemen who are interested in the *pathological investigations* which have occupied his anxious attention for many years past, that he cannot publish any thing further in the *Edinburgh Surgical Journal*, till that periodical changes its Editors, or till those persons mend their manners.

bled by Mr. Drever, one of my pupils, towards the termination of a slight cold stage, certainly before the appearance of the febrile symptoms or second stage. About 12 ounces were abstracted; neither reaction nor a sweating stage followed; and there has since been no return of the complaint, although several months have elapsed. She had neither bark, sulphate of quinine, nor arsenic. In fact, no medicines were prescribed but those of a laxative nature.

CASE 10.—David Lambert, ætat. 36, sailor, residing at No. 9, Couper Street, North Leith, states, that he was attacked with intermittents for the first time on the 9th May, 1827, when on his voyage from Bourdeaux, in the ship *Enterprise* of Newcastle. At the time of attack, they were off Dover in very bad weather, ten days from Bourdeaux. Since then the paroxysms have returned daily, the cold stage continuing for three quarters of an hour, often for upwards of an hour. It has always been severe. His general health soon gave way. He left the ship, disabled, and arrived in Leith on the 30th May. Attributes his illness to sleeping in bed with wet clothing, and going frequently on deck from the galley, in a state of profuse perspiration, at the time he acted as cook. When I visited him, he appeared to be very unwell, feverish, restless, and anxious about his fate; fearful of the consequences of the approaching cold stage, which he expected in a few hours. Says he sleeps little; has constant thirst and diarrhoea; pulse 100; tongue white and loaded, but moist; has a bad cough, with expectoration; slight difficulty in breathing; and constant dull pain in the chest and loins; appeared much debilitated; lies a good deal in bed, and when he sits up, complains of swelling of the feet and legs, which are œdematous; stethoscope announced bronchitis generally in both sides of the chest. The captain of the ship gave him something in treacle, which he supposed to be bark. Mr. Henbest and Mr. P. Mackintosh, two of my pupils, volunteered to watch the case, with a view to bleed in the cold stage. The remainder of the history is taken from their united report.

"June 7th.—Found him very unwell; coughing incessantly and violently; complaining of sense of weight in the chest; pain of head and giddiness; cold extremities; pulse 95, and oppressed." These gentlemen continued to watch him, and at twenty minutes before 8 p.m., "he was seized with rigours, which soon became very severe. The breathing was hurried and laborious; his cough and other symptoms greatly aggravated. The whole body was in violent agitation, and his teeth chattered. When in this state, a vein was opened in

the right arm, and four small tea-cups nearly full of blood abstracted, (about 16 ounces.) He was so suddenly and so perfectly relieved, that he declared he felt quite well, his body became warm, and he soon fell into a quiet slumber. Pulse natural. After regulating the quantity of bed clothes, we took our leave.

"8. Found our patient looking much better, having entirely escaped the hot and sweating stages yesterday; and he enjoyed for the first time a night of uninterrupted sleep. The cough and wheezing are diminished. He expectorates easier.

"9. By account had a very slight chilliness last night; the whole paroxysm being of short duration; there was scarcely any heat, and very little perspiration. In fact, he said there was none of the bad attendants of the previous attacks. He was again visited at 9 p.m., and found in the cold stage, which lasted only ten minutes. The shivering was so very slight as scarcely to be perceptible. Passed a good night; was able to sit up a considerable part of the day; strength improved to his own feelings. The cough still continues with the expectoration; passes dark and fetid stools. Colamel and rhubarb. A blister to the sternum. Milk and farinaceous diet.

"Had an attack on the 10th, and another very brief one on the 11th; from which date till the present day, June 29th, there has been no return of the disease. There is no affection of the chest; his aspect and motion bespeak health, and his strength is perfectly restored, without the use of bark, quinine or arsenic." My reporters state, that on the 19th, the patient expressed himself in the following terms: "If any man had told me, twelve days ago, that I should be so well as I am now in six months, I could not have believed him."

CASE 11.—Corporal Geo. Webster, Royal Artillery, has served thirteen years, three of which were in the West Indies, where he enjoyed excellent health; but since his return, has shown a tendency to chest complaints; has been once in this hospital with a bad catarrh, from which, however, he recovered. He presented himself again at the hospital this day, June 24, 1827, and stated, that he had for some days past suffered from attacks of rigours, alternating with flushes of heat, and attended by pain in the loins and belly, diarrhoea and slight nausea. His pulse was quick, and tongue loaded. He got an emetic, and daily laxatives, and was discharged on the 29th, supposed to be cured. He re-appeared on Thursday, 5th July, and reported, that since his discharge on 29th ultimo, he had experienced three regular paroxysms of intermittent, with a day intervening; the last attack was this

morning. The cold stage was very severe, and continued for two hours; it was succeeded by the hot fit, and terminated in sweating. Complained much of general pains, but suffered distressingly from headache during the paroxysm. Nothing was given but laxatives; he had attacks on the 7th, 10th, 12th, and 14th. He escaped from the 14th till the 20th, when he had a very violent paroxysm; and on the 23d he was bled in the cold stage, and the following report was made at the time: the cold fit was severe, accompanied by violent pain in the head and belly, and oppression at præcordia, heat 95°, pulse 105, weak and irregular, respiration hurried and difficult. When the cold fit had continued for ten minutes, a vein was opened, and blood trickled down the arm at first, but afterwards came in a good stream. When about eight ounces of blood were taken, the pains every where ceased, the tremors became slighter and slighter, and were completely stopped before sixteen ounces were abstracted. He felt a slight tendency to syncope, and the arm was tied up. He spoke a great deal of the sudden and complete relief which he had experienced, and contrasted his present situation with the pains and oppression he had had in previous paroxysms, which always continued till the sweating stage had gone on for a considerable time. His pulse now beat 73, strong and full, heat 100°. No hot or sweating stage followed the bleeding. Four hours after the bleeding, he was again visited; pulse 110, of good strength; skin hot from pressure of bed clothes, which were now carefully removed, to his great relief.

25. Says he has not been so well since first attacked; feels, if any thing, rather stronger, slept well, bowels open, appetite pretty good, and had no return of the disease. Had no medicines but laxatives and infusion of quassia.

CASE 12.—Bombardier James Armstrong, aged 19, is tall, spare and pale; says he always enjoyed good health till 14 days before he left Woolwich, when he was seized with intermittent fever. After the first fit, he had no return for nine days, which he attributes to the use of bark, which was prescribed for him in the General Hospital. But when taking the bark, and while yet in hospital, he was again attacked, and had a paroxysm every day for four successive days. He still continued to take the bark in the intervals. He was removed from the hospital on Wednesday the 11th, to embark with his company for Leith fort. He escaped a paroxysm on the following day, but had one on Friday the 13th, and every day since.

20th July, 1827. Presented himself at the

hospital this morning. States, that the paroxysm came on at seven, A.M., which was very severe, particularly in the cold stage. Says he suffered most from headache, and a trembling feeling, together with a tightness at his breast. Feels now considerable prostration of strength; has no appetite; tongue white, not much loaded; thirst; bowels have not been very open for four or five days; pulse 100, and full.

21st September. At five this morning, was seized with a paroxysm. He describes the cold stage as being the most severe yet experienced. A smart hot stage followed, with excruciating headache. The sweating stage is now over, and he feels relieved. A laxative, taken yesterday, has operated four times.

22. Paroxysm came on at seven this morning. Was bled in the cold stage, after it was allowed to be well formed. He says the fit was very violent, and that his sufferings were produced by severe pain of head, difficulty of breathing, and tightness across the chest. Pulse so quick, irregular, and small, as not to be counted. When about an ounce of blood was abstracted, he felt much relieved; immediately afterwards the rigor ceased suddenly, the sense of cold gave way to a comfortable feeling, and all the other painful sensations vanished; and not more than eight ounces of blood were drawn. In the course of a quarter of an hour, said he was sensible of a little heat and slight thirst. Was visited four hours after the bleeding. Says he feels quite well, and declares he never felt so well, or so free from uneasiness, in so short a time after any previous attack, and that he has no feeling of debility, which he used to have. It should have been mentioned, that the heat under the tongue, in the cold stage, was 105°;—heat taken at this visit, 100°; pulse 76, full, and strong. Has had no stool to-day.

23. At 20 minutes before eight this morning felt a slight chill, succeeded by a flush of heat; but, to use his own words, he had "no fever to speak of." There was no sweating; the whole only lasted for about three quarters of an hour: in former paroxysms, the cold fit alone lasted two or three hours, and the whole attack occupied five or six. Says he feels uncommonly well. Appetite much improved; did not sleep much during the night; took a laxative.

24. Slept well; had a slight sensation of cold this morning, but no fever or perspiration; physic operated thrice.

25. Says he is better and stronger; slept well, but perspired copiously during the night; appetite very good; bowels regular. At the same hour this morning he experienced a slight sense of cold in his loins; but there was no general chilliness, and no heat followed.

26. Had another slight sense of cold at the same hour this morning, but no heat or perspiration followed; strength and appetite improving; bowels regular; slept well.

27. At the same time this morning was sensible of a feeling of lassitude, but no chilliness.

31. Feels quite well, and has expressed a desire to be discharged.

August 3. Continues well; discharged, to attend as an out-patient.

10. Came to hospital, during the hour of visit, in a severe cold stage, which had been on him for about half an hour. He complained of intense pain of head, as if some one were beating it with a hammer, accompanied with pulsation; the tremors were violent and universal; the surface rather cold, the extremities very cold; pulse 140, and oppressed; heat under tongue 97°; breathing hurried and oppressed, and when he attempts to take in a full inspiration, by desire, he finds it not only impossible, but makes much complaint of a pain in the left side of the chest, in the region of the heart. A vein was opened, and before four ounces of blood were drawn, the rigor diminished in violence, and the pain of head became relieved; after the loss of eight ounces, the head was quite free from pain, and the tremors subsided; the heat of his extremities was restored, and a general warm glow was felt over the whole body. When 11 ounces of blood were abstracted, he was found to be free from complaint, and the arm was tied up. Heat under the tongue, at this moment, 107, and the pulse beat 126, and very full; the bleeding occupied five minutes. In about 10 minutes after the bleeding, the headach became so intense, that he entreated to lose more blood, and eight ounces were taken, with complete and permanent relief to the head; this quantity was discharged in three minutes. His body was now universally warm, indeed rather hot; the additional blankets were removed, and he felt afterwards cool and comfortable; pulse 120; feels drowsy.

11. In an hour after the second bleeding yesterday, the headach returned, but in a much slighter degree; it was completely relieved by the application of cold water; passed a good night, but had a copious perspiration towards morning; feels now quite well; has no pain, and says he does not feel weak; appetite good; had three stools last night, and one to-day.

12. Passed a good night; feels quite well, and says he is stronger; tongue clean and moist; pulse 76, of good strength; belly open from medicine taken last night.

17. Has continued to improve since last report on 12th; has had no return of the disease, and is discharged, to attend a few days as an out-patient.

CASE 13.—John Loyd, aged 20; has been 11 months in the service, and was three times in hospital at Woolwich, with intermittent fever.

July 27, 1827. By account, he had regular paroxysms of tertian intermittent lately, on the voyage from Woolwich to Leith fort. When he presented himself at the hospital to-day, his countenance was much oppressed, and his gait tottering. Says he has had a rigor all night on guard, and that he has felt cold for the last 24 hours; complains much of headach, pain in the loins, general uneasiness, and difficulty in breathing; heat under the tongue 100°; thermometer, held in the hand, 75°; the feet and legs also cold to the touch; pulse scarcely to be felt, and not to be counted. He appears to be between the cold and the hot stage—the cold predominating—with so much congestion about the heart and larger vessels, that reaction is prevented. Upon this view of the case, a vein was opened, and although a large orifice was made, the blood only trickled down the arm, which was proved to depend on a want of sufficient force in the circulation; for when the orifice was pressed by the finger, so as to stop the flow of blood for a moment, allowing time for the vein to fill, a stream took place on the removal of the pressure: this was repeated a number of times, and with the same effect; the blood itself was thick, and coagulated imperfectly; it looked of different tints; 12 ounces of blood were taken in 15 minutes. The patient felt somewhat relieved after the bleeding, but complained of debility.

28. Became very hot and restless in an hour after the bleeding, but has had no perspiration. Passed a restless night, with headach and sore throat. Pulse 106, distinct and easily compressible. Skin hot. Thermometer placed under the tongue 102°; held in the hand 99°. On looking into the throat, there appears to be no inflammation. Breathing almost natural. Is affected with slight startings. A vein was opened in the arm, and although a large orifice was made, the blood only trickled, and presented the same black appearance as yesterday; as soon as four ounces were taken, a small jet took place, which increased at last to a tolerable stream. The arm was tied up on the approach of syncope, when eight ounces were abstracted. Expressed himself much relieved by the bleeding, particularly with regard to his head. Heat under the tongue after the bleeding 100°. Feels disposed to sleep.

Vesperæ. Complains of headach, heat of skin, and considerable thirst. Pulse 100, and strong. Blood drawn in the morning has not separated any serum; it is like treacle, and, together with that taken at the last bleeding, has all the appearance of

what the old writers called "dissolved putrid blood."

29. Feels better in every respect; slept well; no stool since yesterday morning; pulse 100, less oppressed; heat natural; tongue rather foul and dry at the tip.

30. Continues to feel better, and to sleep well, but complains of weakness; three stools; pulse 92, of good strength; great thirst.

31. Complains of general uneasiness, sore throat, and difficult deglutition; also of a pain in the epigastric region. He attributes these symptoms to the solution of the tartrate of antimony, which he has been taking for two or three days. The throat looks inflamed, the fauces and uvula being covered with a thick viscid exudation.—Tongue dry, red round the edges and at the tip; skin hot; pulse 100; thirst considerable; bowels opened twice; abdomen to be fomented; antimony to be discontinued; a small dose of castor oil; blister to the throat.

Aug. 1. Passed a bad night; but the restlessness and the troublesome symptoms described yesterday began to decline towards morning, and he now feels considerably better. Tongue moist, but discoloured and dry in the centre, and in a small angular space at the tip; skin hot and dry; pulse 98; three stools; blister rose well, and relieved the throat.

3. Slept well the last two nights; feels better in every respect; but complains of his tongue, which is fissured; it is cleaner and quite moist; thirst diminished; skin rather warm; one stool yesterday, and two to-day; pulse 80, of good strength; appetite improving.

5. Continues to improve.

7. Convalescent, and able to sit up. He continued afterwards to make a good recovery.

CASE 14.—John Boyd, aged 23. Was lately quartered at Woolwich, during a period of nine months, when intermittent prevailed, but he escaped the disease. Was seized last night, October 25, 1827, about twelve o'clock, after retiring to bed, with cold shivering, giddiness, and difficulty of breathing, which continued for three hours with great severity, and then became mitigated, but did not entirely cease. In a few hours afterwards the rigours, with the other symptoms, recurred with increased violence, and continued so until visited at ten o'clock on the morning of the 20th October. He had no sleep during the night. Was still shivering violently, and walked to the hospital with great difficulty from extreme weakness, and his gait was like that of a drunken man. After he was placed in one of the wards, the extremities

were found to be cold; heat under the tongue 95°; respiration 33, and performed with an effort; pulse scarcely to be felt at the wrist, beating 65. He complains of an insupportable sense of coldness, of excruciating headache between the temple, difficulty of breathing, oppression at the chest, and debility. A vein was quickly opened; the blood did not flow readily at first, although the orifice in the vein was well made. When about five ounces of blood were abstracted, the respiration was performed with more ease, the pain of head was less, and the tremours were slighter. The blood now began to flow in a better stream, and when ten ounces were taken, the patient declared he had no complaint but giddiness and a sense of faintness.—Hitherto he had been in the sitting posture, but was now placed in the recumbent, and the arm was tied up. The space of time occupied by the bleeding was two minutes and a half; the pulse was much stronger, beating 96; the thermometer placed under the tongue rose to 99. In the course of five minutes afterwards, a slight rigour supervened, with a return of the headache; and, as the pulse was strong and firm, the blood was again allowed to flow from the same orifice to the extent of six ounces, with complete and permanent relief. He now felt comfortable, to use his own expression. Pulse 80, of good strength. Had a drink of warm gruel, and in a short time a slight moisture appeared on the surface of the body.

Vespere. The patient was found sitting up dressed. Said he did not feel weak, and that he had been very comfortable all day since the bleeding. Surface moist; tongue moist; pulse 80, strong.

27. Passed a good night; had some perspiration; a laxative powder, which he took last night, operated five times. The report on the 4th of November states, that he feels quite well, and as strong as ever he did. Appetite good; sleeps soundly; bowels regular, without medicine, and he has had no return of the disease since the bleeding, and on that day he was discharged the hospital.

CASE 15.—John Rose, aged 22. Has always been healthy till he had the ague at Woolwich, for which he was in hospital twice, three weeks the first time and a month the second, but says he has since scarcely ever been free from pain of head and loins. Two days ago had a severe attack of intermittent, and another this morning, 18th October 1827. He presented himself at the hospital during the hot stage; belly constipated; tongue foul.

19. Bowels opened several times from a

laxative powder, which he got last night; feels better.

22. Bowels have been kept open by gentle laxatives; sleeps well at night; appetite improved; no return of the paroxysm. Discharged, to attend as an out-patient.

Re-admitted on the 24th October. States that he was seized with a severe paroxysm this morning at six o'clock. At ten he presented himself at the hospital in the hot stage, suffering much from headach, pain in the back, and hurried respiration. Pulse 130, full and strong; bowels regular; tongue foul.

26. Had an attack this morning at five; at ten A.M. he was still in the hot stage.

29. The paroxysm came on between two and three o'clock this morning; at ten he was still in the cold fit; he complained of pain in the head and loins; the tremours were not violent; tongue rather loaded, but moist; pulse 64, weak and oppressed; heat under the tongue 92° ; in the hand 72° . A vein was now opened, and he was quite relieved before six ounces were abstracted, and the tremours ceased when twelve ounces were taken, which occupied three minutes of time. The thermometer was now again placed under the tongue, and the heat found to be 96° ; in the hand 75° . There had been no application of heat, nor had any warm drink been given. There was a slight moisture over the surface. Upon being asked if he felt weaker since the bleeding, he replied, that he was "not aware of feeling weaker."

30. Was quite comfortable after the bleeding yesterday, so much so, that he dressed himself and sat up all the afternoon, and ate a good dinner. Slept well; bowels open; tongue clean; pulse 64, and of good strength; thinks that he feels rather weaker than he did yesterday afternoon, but says he has no complaint.

Nov. 1. Has had no return of the paroxysm. Says he feels quite comfortable; appetite good; bowels regular; sleeps better at night than he has done for several months.

4. Continues to improve in health. Has had no return of the disease, and was discharged the hospital in the course of a week, cured.

ON CONGENITAL DISTORTIONS OF THE FEET.

By MR. SHELDRAKE.

To the Editor of THE LANCET.

SIR,—I have already advanced an opinion, and, I trust, established it by suffi-

cient proofs, that the peculiar distortions of the feet of children which take place before the birth, and when the feet are turned inwards, may certainly be cured, in a reasonable time, if they are properly attended to. I shall now proceed to show that what may be called the opposite kind of case, where the feet are turned outwards, although the defect is not so striking to the uninformed observer, and indeed is often unobserved until it is much increased and becomes more troublesome to the sufferer, than the opposite defect, the so called varus.

CASE 1.—A gentleman's child was shown to me soon after its birth; there was no visible defect in the form of its right foot, but it was turned upwards in a very remarkable manner, which created an alarm that induced his parents to consult me. After a careful examination, I clearly saw that it was a case of this kind, and advised the parents to wait a short time to see what course the foot would take. After the expiration of a few days, it was perceived that the defect diminished; the cause of this alteration was, that as the child was healthy, strong, and active, the struggles which such children will make to bring their limbs into action, acted favourably upon the gastrocnemii muscles, and brought them into action so favourably that their increasing energy overcame the defect in the foot; so that, at the end of three months, there was no circumstance remaining which could show that the foot had ever been defective. I was so employed in this family that I had opportunities of seeing this child grow up to maturity, and knowing that no deficiency ever appeared in this foot during his after-life.

CASE 2.—Another gentleman's child was soon afterwards shown to me, who was recently born with one of his feet under similar circumstances. The former case was fresh in my memory, and induced me to recommend that a similar course should be pursued in this. My advice was adopted, and with equal success, for, at the end of two months, it could not be discovered which of his two feet had been defective; he arrived at maturity, and passed through life in the same state as the former.

CASE 3.—A child was born with one foot distorted, like the annexed figure which was drawn from a cast that I had taken when he was but a few days old, at which time he was placed under my care. Some weeks afterwards, I was desired to examine his other foot, which had not been offered to my notice before; indeed the parents' attention had been so engrossed by the right foot, that they did not perceive that any thing was the matter with the other. At

the time that this foot was offered to my notice there was little peculiarity in its form, but, in lifting the foot, he moved it more upwards and outwards than the action required. As I was employed to cure the right foot, I was desired to watch the progress of the left, and do what I found to be necessary. By the experience that I had in the two former cases, and in some others of the same kind, I was induced to believe, that as it happened in those, so it might happen in this, that the action of the foot might rectify itself; but this did not prove to be the case.

Contrary to what happened in the former cases, as this child increased in strength he struggled to move his feet; he raised the left foot more and more upwards and outwards, by which action the head of the astragalus passed from its natural situation, and lay very much behind the tibia, which gave the general appearance of the foot having a heel much longer than usual; at the same time the foot turned outwards, and, if the child had been able to stand at all, it would have stood with its inner angle upon the ground. As I was not allowed to take a cast from this foot, I took a drawing, from which the annexed figure was made.

As no doubt could remain that this foot would be permanently distorted if proper measures were not adopted to cure it, I made such applications as put the foot in safety, so far as to prevent it from becoming more distorted; and as the child was now beginning to use its legs, I applied such bandages upon both feet as would enable him to walk in safety.

The parents of this child lived eight miles from London, and brought the child to my house whenever it was necessary for me to see it, or, rather, they should have done so, for the distance, disappointment of stages, and other engagements, made them irregular in attendance, and thus protracted the cure to a time much beyond what it would have employed if their attendance had been regular. At the end of four months both the feet were reduced to their natural form and action, but with so much weakness, that as the child was now able to walk, and was very healthy, it only remained to keep what I have found to be a very simple system of bandages on the feet, to support them under that exercise which the activity of the child constantly gave them, till they acquired strength enough to support themselves.

The parents, seeing how simple the means that I employed appeared to be, and willing to save themselves the trouble of coming so often to London, took the case into their own hands, and were supplied with what was necessary for that purpose. At the end of several months the feet were

much relaxed, and the child was again placed under my care till it was quite well.

The two feet, in the state they were when the child was placed under my care, are represented by the two figures that are annexed. As I was not permitted to take any cast from the feet after they were cured, I cannot give any representation of them here, and must be contented to say, they were quite restored to their natural form and powers, in which state they remained, as I had opportunities of seeing them several years afterwards.

CASE 4.—A child was placed under my care when she was four months old. The bones of the leg were bent directly forwards; the foot was flatter than is usual with children who are naturally formed, and, when the child moved itself, it always turned the foot upwards, towards the outside of the leg, instead of downwards and inwards, which is the usual consequence of the exertions that are made by children who attempt to use their feet before they are able to stand. The heel appeared to be preternaturally long, and, upon examination, the astragalus could be plainly felt behind the tibia, to which circumstance the apparent length of the heel must be attributed. I took a cast from the foot at the time, and the annexed figures were drawn from that cast. Figure 3 represents the leg when viewed from behind, and, at the same time, looking at the outside of the leg. Figure 4, is a front view of the leg, and at the same time shows how much the heel fell lower than the fore-part of the foot. I have been told, that the circumstances which I have mentioned were noticed at the time the child was born, but as they were believed to be incurable, no application was made to any one to ascertain whether the defect was or was not incurable. As the child advanced in life, it became evident that the peculiar form of its leg and foot increased instead of diminished, as it had been foretold by some who had been consulted; and it was at last determined to place her under my care.

In the treatment of this case I adopted the plan, and acted upon the principles, that have been already explained, and, at the end of eight months, the foot was so much restored to its natural form and powers, that my further attention to it was not thought necessary, and I withdrew.

As I did not think the cure of this case was so permanent as they did whose influence with the parents was superior to mine, I did not take any cast from the foot at the time that my attendance ceased, but determined to wait till I could see whether it was or was not so. Unfortunately, several months afterwards, through the care-

lessness of a servant, the leg was fractured, and, in consequence of some peculiarity in the management, the fractured bones did not reunite. Many months afterwards I was informed, that the fractured bones continued in the same state, and the child was afterwards removed, so that I do not know how the case terminated; at all events, the fracture must have altered the condition of the leg so much, that no conclusion could

have been drawn from the facts of the case, as of one of simple distortion.

In my next, I shall send two peculiar cases of this species of distortion, with some observations to show how much they differ in their effects upon the patient, from those with which they are frequently confounded.

I am yours, &c.

T. SHELDRAKE.

7, Devonshire Street, Portland Place.



ACCIDENTAL COLOURS.

To the Editor of THE LANCET.

SIR,—A better explanation of accidental colours than M. Cuvier has given at page 629 of THE LANCET, may be found in Dr. Darwin's *Zoonomia*, vol. i., pages 15 to 25 inclusive. M. Cuvier's experiments are, in reality, nearly the same as the illustrations of that eminent philosopher; and I am inclined to think that M. Cuvier is indebted to Dr. Darwin for his information.

"Palmam qui meruit ferat."

I am, Sir, yours, very respectfully,
J. BEDINGFIELD.

Medical Academy, Stow Market.

LUNATIC PAUPERS IN THE COUNTY OF MIDDLESEX.

FROM the returns which have been made on this subject, it appears that there are 597 male pauper lunatics in this county; females 546; sex not mentioned 20; total 873. Of this number, 409 have been more than five years in an "unsound" state of mind.

ON THE EXTRACTION OF TEETH.

By JOHN PALMER DE LA FONS, Esq.

At a period when almost every art has attained so high a degree of perfection, it is truly surprising, and much to be regretted, that so important an operation as that of tooth-extracting, instead of advancing, should have retrograded—that a set of dental instruments, under the mask of *improvement*, should be so clumsily constructed as to be readily mistaken for a *farrier's tools*.

Medical men, whose experience in this department of surgery is often unavoidably very limited, confiding in the misrepresentations of persons interested in deceiving them, are led to provide themselves with instruments so ill-contrived, and of such *preposterous* dimensions, that they seem best adapted for a *speculative consignment to the kingdom of Patagonia*.

Few subjects have exhausted so much time to little purpose as the attempt to discover a means of extracting teeth in a direction perpendicular to their axis. For this purpose, a variety of contrivances have been produced, many of them very ingenious; but all, one after another, have sunk into oblivion at a very short date from their appearance—a disappointment that would have been spared to the inventors of them,

had they commenced by acquiring a thorough knowledge of the form of the teeth, of the power requisite to detach them from their sockets, of the fragile nature of decayed teeth, and the structure of the alveolar processes; then, supposing them to be acquainted only with the first principles of mechanics, they must have perceived the above-mentioned project was absurd in the extreme, and one they could not have entertained for a moment, had they comprehended the action of that most useful and admirable contrivance, the key instrument. He who does not clearly understand the application of this instrument, is utterly unfit to operate in cases of importance.

Considerable ingenuity has been displayed in some of those contrivances that were expected to act by placing the fulcrum upon the adjoining tooth, or teeth; a method that, for very obvious reasons, cannot possibly succeed. Others again, possessing no talent for invention, have contented themselves with introducing, as a *novelty*, an instrument that has been in use from the *remotest ages*—a pair of pincers!! GREATLY improved, by being made of the most *gigantic* and *appalling* dimensions.

That the use of such an instrument is highly objectionable in all cases where the key is generally used, will be very evident, if we reflect that the teeth hold so tightly by reason of their diverging, crooked, and otherwise misshapen roots, that the most powerful and continued efforts to remove them in that way will prove unavailing; unless, to be sure, breaking can be called removing.*

On reference to fig. 1, the objections may be readily traced. To detach the tooth A, from its socket B, in giving the unavoidable movement from *side to side*, (from C to D, for instance,) the point E being *fixed*, which is not the case with the *bolster*, if the tooth offers much resistance, the handles must be grasped with extraordinary force, or the jaws of the instrument will *open*, on attempting to incline it in that direction; consequently the greater portion of force so applied, is admirably calculated to wrench off the crown of the tooth, as represented by the dotted lines across the tooth at F.

If the pincers, under this form, are objectionable, how much more so are they for extracting the *dens sapientie* and others, where, the jaw not extending sufficiently to apply them in the favourite perpendicular direction, it is necessary to curve them,

* Those who pretend to operate in this manner are so well aware of this fact, from experience, that they have been frequently *detected* exhibiting their *infallible* pincers with one hand, while the *key* was *concealed* in the other.

so as to act at right angles with the handles; consequently the operator must use great additional force, having, as it were, to raise a considerable weight at the end of a lever; so that, admitting he has power to remove the tooth, it so suddenly yields, that the violence of the jerk very often either fractures or loosens one of the teeth in the opposite jaw, which the operator can no more control, than he could avoid falling, if, in pulling an immense weight, the cord he held were suddenly, though not unexpectedly, to break.

Another insurmountable objection, is the length of time required for loosening a tooth with the pincers; for, in defiance of the favourite *perpendicular* action, the tooth will not stir till it has been most forcibly worked to and fro during some time, as the crown would break off sooner than it would yield to a dead pull; and thus it receives the very lateral action so strongly and so sagaciously opposed.

Lastly, the pincers cannot be used with a chance of success where the crown of the tooth is much decayed; for, in the effort to loosen it, the pinch requisite to prevent the instrument from slipping, would be unavoidably greater than the remaining substance of the tooth would allow without breaking.

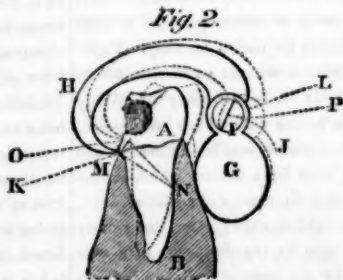
The preceding observations will suffice to shew the impolicy of attempting important operations with the pincers, or any other means by which it is proposed to lay hold of the tooth between two *cutting* edges.

With the assistance of the *drawing*,

fig. 2, a few words will be sufficient to prove the decided superiority of instruments constructed upon the principles of the key. The bolster and claw, G H, are represented as fixed on a decayed tooth A, preparatory to its extraction from the socket B. The power is applied to the bolster, so as to turn it round, this moves the joint I in the dotted curve J, and pulls the claw H in the direction of the line K L, along which the tooth, having no direct support, is pulled by the claw on one side, (as shown by the dotted lines,) and tilts on the part N of the socket as a fulcrum; this being opposite the bolster, the pull varying from the direction K L to O P; this widens the socket and gradually detaches the tooth, first from the side M, under the claw, while the excellent position of the bolster causing a fulcrum N so low down the socket; the upper portion of tooth becomes a powerful lever to move and detach the bottom, beginning first at one side, and stretching the socket, so as to make room for it the easier to slip out; thus the parts are easily and gradually loosened, but in quick succession, thereby avoiding all that violence of tug and shock that must attend perpendicular extraction, as it is erroneously called. The quantity of tilt is here greatly exaggerated to make it visible, much less being sufficient to loosen the tooth.

Instruments on this principle are the only ones that can be applied to stumps having no upper portion to lay hold of.

14, George Street, Hanover Square.



THE LANCET.

London, Saturday, October 13, 1838.

The public attention has recently been drawn to the pretensions of an individual who makes claim to the discovery of a specific remedy for consumption. One of our contemporaries, well known in the neighbourhood of Guildhall, has endeavoured to acquire a little notoriety on this occasion, partly by assailing the respectable editor of the *Literary Gazette*, who has given publicity to some cases of phthisis pulmonalis said to have been cured by the individual in question, and partly by addressing letters to the *John Bull* and *Spectator*, which letters have elicited replies. We forbear entering at present into the merits of this controversy; but there is one point which it may be well for the public to bear in mind, in estimating the probability of any alleged discovery of specific remedies for diseases which have hitherto baffled the resources of our art. It should be recollected, that we know of no specific remedy for any disease. Bark in intermittent fever, and mercury in syphilis, have been called specifics; but bark often fails to cure intermittents, when other therapeutic agents are successful, and it is ascertained that syphilis, under all its forms, may be cured in many, perhaps in most cases, without the use of mercury. Experience does not warrant us in concluding, that there is any one remedy specifically applicable to the cure of any one disease. Still such a remedy may be discovered, and that, too, even for a disease which has hitherto baffled the powers of medicine.

The probabilities always are, that a party making claim to the discovery of a new remedy for the cure of a disease hitherto supposed incurable, and refusing to disclose the nature of the remedy, has either deceived himself, or wishes to deceive the public. It is possible, however, that the

individual in question may have discovered such a remedy, and the refusal to disclose the nature of it, is not to be taken, as some of our contemporaries contend, as conclusive evidence of fraud. The refusal proves only that he prefers his pecuniary interests to the good of mankind; that his cupidity is too strong for his benevolence; that his charity, in short, begins at home. If the person we allude to lay claim to philanthropy, as well as to the discovery of a remedy for phthisis, we should be inclined, without looking into the evidence on which his pretensions are founded, to decide at once that he was an impostor.

ADDISON has remarked, that we never read a book with so much pleasure, as when we know certain particulars respecting the author's person, education, manners, or characteristic peculiarities. Poor RODERICK MACLEOD seems to have availed himself of this hint; for, finding that nobody but the trunk-maker has ever yet patronised his lucubrations in the *Yellow Fungus, or Excrescence*, he has last week, by way of prelude, we presume, to a more agreeable vein of writing, entertained the public with some gratifying particulars respecting himself, and the places at which, he tells us, he was educated. He has not only communicated to the public, in the last week's *Excrescence*, the fruits of his own experience and observation, as to the comparative prevalence of drunkenness and wenching, in the English and Scotch Universities, but he has also had the kindness to add certain interesting disclosures of his "bed-maker" on these subjects. When Roderick Macleod tells the public what, he says, his bed-maker told him, this is not, it must be confessed, the very best species of evidence; but it is a maxim in law, we believe, that when the best evidence is not to be obtained, the next best is admissible; and, for our own parts, in the case before us, we are disposed to place just as much reliance on

the hearsay evidence, derived from a college gyp or bed-maker, as on the direct testimony of the highly-gifted and voracious Scotch Dub himself. Our readers will scarcely give Roderick credit for being "so agreeable a rattle," and we shall, therefore, quote the passage to which we allude. After having touched upon the vice of unchastity, and stated that "whenever a multitude of young single men are gathered together, they are sure to devour, like locusts, all the frail purity (*the frail purity!*) of the neighbourhood, he proceeds to the vice of drunkenness:

"As to the second vice, drunkenness—we ourselves went from an English University to a Scotch one, and surely we never witnessed at the latter such long, hard, deep drinking, as we did at the former. Our old bed-maker used to tell us (and we saw enough to know that she was not romancing) that she always came about four o'clock in the morning to see in what condition her masters came home; they were generally brought—but we will not repeat the scenes which she described."

We will not bear so hardly upon Roderick, as to call upon him to name the English College, which was the scene of his youthful excesses, before he went to get dubbed at a Scotch University. *He saw enough, to know that she was not romancing!* We take it for granted, he wishes to have it believed that he tossed off his bottle with the best of them; although, undoubtedly, the passage does admit of another construction, and, if we were inclined to be malicious, we might infer that, when Roderick assisted at these scenes of riot at an English University, he was not *one of the company*. But *he will not repeat the scenes his bed-maker described to him!* Admirable discretion! Exquisite application of the figure *apositionis*! The *quos ergo* in Virgil is tame to it. It is plain that the Scotch Dub has not been at an English University, in whatever capacity he might have figured there, for nothing. That his forbearance on this occasion, however, does not arise from excess of delicacy, may be inferred from the following well-

imagined, and laughable anecdote, which he introduces by way of exposing the folly of Lord DUDLEY, Sir JAMES MACKINTOSH, and Mr. BROUGHAM, who have permitted the establishment in Gower Street to be called by a designation at once so recondite and absurd as an "University."

"A sailor out of Lord Nelson's fleet, who was one morning parading a sea-port town with his girl, called at a druggist's shop for some blue unction and red precipitate. As they were going out, the girl said to him, 'Is this a druggist's shop?' On which Jack, pulling up his trowsers, and looking mightily wise, answered—'Yes, that's the common name; but the proper name is a *lapidary!*' meaning a laboratory."

"*Blue unction and red precipitate!*" "*A lapidary! meaning a laboratory!*" And this is the material which, to say nothing of its decency, Mr. BRODIE takes for wit; the material put forth—*proh pudor!*—by the publishers of the Edinburgh Review, to expose, by the force of its sarcasms, and the playful felicity of its illustrations, the ignorance and bad taste of Lord DUDLEY, Sir JAMES MACKINTOSH, and Mr. BROUGHAM!

A Manual of the Anatomy, Physiology, and Diseases of the Eye and its Appendages. By S. J. STRATFORD, Member of the Royal College of Surgeons in London, Surgeon to the Dispensary for Diseases of the Eye, and late Senior Assistant Surgeon of the 72d, or Duke of Albany's own Highlanders. London, Longman and Co.; J. M. Leckie, Dublin; G. A. Williams, Cheltenham; T. Stratford, T. H. Wheeler, and H. Deighton, Worcester. 8vo. 1828. pp. 199.

THIS is the second work on diseases of the eye, that has fallen under our notice within the last six months; a circumstance which gives us much satisfaction, because it is indicative of an increased, and we trust increasing, attention to a department of surgery, which, until within the last few years, has been utterly neglected. It

is true, that we have many valuable detached treatises; but,—and we record it with something like a feeling of humiliation,—no British author has yet produced a systematic and comprehensive work on diseases of the eye. Ophthalmic affections seem, indeed, almost from time immemorial, at least in this country, to have been regarded as something extraneous, or not appertaining to surgery; and hence the treatment of diseases of the eye has been abandoned to quacks—would that we could say it were entirely rescued from their hands now! We should but insult the understanding of our readers, by attempting to demonstrate that ophthalmic diseases are not without the legitimate pale of surgery—that the principles derived from a knowledge of anatomy, physiology, and pathology, are as applicable to the organ of vision as in the treatment of disease in any other part of the frame. There is a trite remark, which we have somewhere met with,—that the pathology of the eye is an epitome of all the diseases of the body. In truth, so varied are the structures of the eye, that the observation certainly does hold good to a great extent: as the component parts of the eye are analogous to those of the body generally, so are the diseases essentially similar—swayed by the same laws—their treatment regulated by the same principles. Strange enough, then, that the diseases of this organ should be detached from the study of surgery generally. Mais quels fruits pourroit porter cette branche, étant séparée du tronc? shrewdly inquires the celebrated Louis. It is gratifying, however, to observe, that a knowledge of diseases of the eye is now regarded as an essential part of a medical student's education. If he require any assurance that such knowledge is not incompatible with the highest attainments in every other branch of surgery, we need but refer to the lectures of Mr. Lawrence.

We have run on so far, that we fear it will be suspected we have taken the title of

Mr. Stratford's book merely as a peg on which to hang a dissertation. To proceed, however, with our analysis.—The work consists of about two hundred pages; of these, one-fourth is devoted to the anatomy and physiology of the eye, and the remainder to a consideration of the diseases and treatment. Of the former part, it will be sufficient to remark, that it is concise, and, at the same time, perspicuous and accurate: the description of the nerves supplying the eye and its appendages, is excellent.

After some general remarks on inflammation, the author proceeds to treat of the diseases of individual parts—and first of the tunica conjunctiva. He objects to the term "strumous ophthalmia," preferring to designate the disease known under that term, by the name of *irritable inflammation*, and for the following reason:—

"Scrofula is so vague a denomination, and is so difficultly defined, that I think it would be preferable to have a more precise and definite term for this affection, than to confound it with all the various symptoms of the above-mentioned disease."

Diseases of the lachrymal gland form the next subject of consideration, and then affections of the excretory parts of the lachrymal apparatus are brought under view. The misapprehension and want of information on these subjects, which prevail generally, are truly lamentable; under the term *fistula lachrymalis* has been included a variety of affections totally different from each other. We scarcely need observe that if we are to attach any precise meaning to words, the term *fistula* is only applicable to certain cases, those in which there is an ulcerated opening (difficult to heal) in the lachrymal sac. The various diseases described by our author are as follow:—

Contraction of the Puncta.—This, in general, is the result of chronic inflammation producing a swelling and thickening of the cellular substance around the punctum, or of the lining membrane itself.

"If the defect is recent, we should attend to its exciting cause, which is generally at-

tended and kept up by an affection of the palpebral margin; if this be removed, the complaint generally subsides: but should these means fail, and the disease have lasted a considerable time, we should open the punctum with a fine point, and then introduce a fine probe, which should be allowed to remain for a short time. This operation should be repeated daily, the size of the probe being gradually increased until the obstruction is removed, and the punctum resumes its natural size and office."

Dilatation of the Puncta.—This form of disease commonly occurs in old people, with more or less relaxation of the lower lid, and not unfrequently accompanied by some eversion. It may be partially relieved by attention to the general health, and the use of mild astringent applications.

Inflammation of the Sac.—The progress of this disease is thus described:—

"It generally commences as a small, hard, and very painful tumour, situated at the inner angle of the eye, about the hollow of the lachrymal bone; it is of a red colour, nearly the size and shape of a small bean, and generally attended with acute pain, especially when pressed. The inflammatory action may soon spread to the neighbouring parts: now the papilla appear shrunk, and the puncta are obscured; while the nostrils feel dry, and the tears fall over the cheek, in consequence of the compression of the lachrymal passages. As the disease proceeds, a serous effusion is poured out in the cellular texture around the sac, sometimes even spreading to the eyelid; now a severe throbbing pain not unfrequently takes place, and this is soon accompanied by the formation of matter which occurs in the cellular tissue surrounding the sac: at this stage the sac is always filled with a puriform mucus, secreted from the lining membrane, which must always participate in the same inflammatory action. The swelling now quickly increasing, the skin assumes a shining and polished appearance, gradually becoming of a darker colour, while presently we may perceive in its centre a yellowish, pale, softish spot, marking the existence of matter; this, if allowed to burst, soon becomes thinner, until it spontaneously opens, and permits the fluid parts to escape, and the tumour partially to collapse. The discharge from this opening continues a longer or shorter period; at first it is thick and whitish, and should the patient be of an unhealthy habit, it may become more transparent and limpid. The effusion is now soon absorbed, the swelling begins to diminish, and the puncta may re-

sume their natural office, while the wound also soon heals, and generally without leaving any organic change, or permanent impediment, which may prevent the due passage of the tears into the nose."

Mr. Stratford expresses his opinion that the inflammation commences in the "ligamentous texture," but that it soon implicates the surrounding tissues. It is seldom, he says, that the ulcerative stage produces a direct opening in the sac, hence the quick subsidence of the disease, and rapid closure of the wound. The treatment to be adopted, is the application of leeches, the employment of cold, and the exhibition of purgatives. If the disease proceed to suppuration, its speedy termination must be encouraged by warmth, and an early and free exit given to the matter, to prevent its burrowing under the skin.

Acute Inflammation of the Mucous Membrane.—The symptoms, says the author, are precisely similar to those evinced by inflammation of the ligamentous texture of the sac, and is only to be distinguished by the attendant conjunctival inflammation.

Chronic Inflammation of the Mucous Membrane.—It is this form of disease which gives rise to so many unpleasant results. Its progress is slow, often increasing imperceptibly, without causing much pain or inconvenience. One of the first symptoms is an increased secretion of mucus lodging in the sac, and forming a small tumour. As the result of continued inflammation, a thickening of the membrane takes place, and gives rise to stricture of some of the passages.

"This may happen at any part, but the most frequent spot where it occurs is at the termination of the sac in the ductus nasalis, or about midway down the duct itself. These passages having continued more or less pervious for a considerable time, gradually become narrower, and the stricture more confirmed. Now the sac is greatly distended, so that upon the application of the least irritation, an accession of inflammation is produced, which, implicating the ligamentous structure and neighbouring parts, is attended with considerable pain,

the effusion of serum takes place, the skin covering the tumour assumes a dark red colour, and very soon the formation of matter occurs immediately under the integuments. The sac now, as a consequence of its distention, quickly proceeds to ulceration, permitting the escape of its contents, so that now we have the only stage of these complaints, to which the term of fistula lachrymalis is applicable: its adoption in every variety of these diseases creates great confusion, and is apt to lead to wrong ideas upon the subject."

The treatment in the first stages of this complaint must be pursued in reference to the chronic affection of the membrane. Strict attention must be paid to the general health, with the cautious use of stimulants, as ung. hyd. nit., vinum opii, &c. A great source of mischief, and one general error in practice, which we have had abundant opportunities of witnessing, is the use of instruments under these circumstances. Permanent closure of the canal is not so frequent an occurrence as is generally imagined; if attention be paid to the means calculated to relieve the chronic inflammation of the mucous membrane, and to change the vitiated secretion of the meibomian glands, we shall, for the most part, find that the disease may be cured without the use of instruments. But if this treatment is found to be ineffectual, we may suspect that a stricture exists, and for the treatment of this, Mr. Stratford recommends the introduction of a probe at the punctum. He gives the following directions for its use:—

"In passing the lachrymal probe, which is a silver wire slightly bulbous at the point, and flattened at the further extremity, often having a turn to accommodate it to the form of the brow, we should hold it tightly between the two fore fingers and the thumb, then selecting the inferior punctum; and should this be closed, we may, by insinuating the point of a pin, readily dilate the orifice, so as to admit the probe. Now placing the finger upon the temporal surface of the orbicularis muscle, so as to make the ciliary margin tense, and slightly evert the lid, then holding the probe in a perpendicular direction, we shall generally be able to enter the punctum. Sometimes, however, we may see it spasmodically retracted, so as to create an obstacle to the attempt: having en-

tered the punctum and perpendicular canal, we should turn the probe at right angles, that is, in an horizontal direction, and pass it along the lateral canal, until we find it strike against the bone, which is easily distinguished by the resistance it occasions. Now, when the point is fairly within the sac, by a greater turn of the instrument, we again elevate it, and carry it gently outwards and downwards in the course of the nasal duct, until it touches the floor of the nostril, or superior spongy bone. When about to enter the sac, if we do not carry it home before we attempt to rise it, or if we suffer the point to recede in that movement, we generally find that the point will catch in some membranous fold, and we shall certainly be foiled in our attempt to enter the sac: having overcome this difficulty, we shall then be generally able to accomplish the passage. Should we, however, meet with any other difficulty, we shall generally be able to pass the instrument (unless it be a confirmed stricture,) by rolling the probe between the finger and thumb."

If the foregoing means are found to be insufficient, and the disease is likely to run on to suppuration, the sac is to be laid open, and, after promoting the suppurative action for a day or two, we are to proceed in forcing the passage to the nose; by means of a strong silver probe introduced through the wound of the sac, and carried steadily downwards, almost in a perpendicular direction, inclining a little outwards. The author expresses himself strongly in favour of the use of a tube, as practised by Dupuytren, but he thinks it preferable, after forcing the passage with the probe, first to introduce a style, or bougie, so as to accustom the part to the presence of a foreign body, rather than at once to pass the tube. A silver tube, he says, will equally suffice with one made of gold. We can ourselves speak with much confidence of the successful results of this mode of practice.

Having dwelt so long upon the diseases of the lachrymal organs, we must be brief with the remainder of the volume. Treating of inflammation of the sclerotic tunic, the author observes:—

"The causes of sclerotic inflammation are those which can excite a similar disease in other parts of the body, such as the sud-

den application of cold, when the system is preternaturally heated. This disease frequently accompanies, or even alternates, with a rheumatic affection of the joints, which leads us to conclude, that the inflammatory action is connected with this disease, a position which the similarity of the texture affected greatly tend to confirm."

It is, we believe, now generally admitted, that the sclerotic coat is liable to be affected with rheumatic or arthritic disease.—Colchicum, and, in some instances, the quinine, are the best remedies.

The author, in treating of cataract, takes occasion to reprobate the pursuance of one kind of operation in every instance. In the following sentiment we fully accord with him:—"The operation must be adopted to the kind and variety of cataract, rather than the eye to the operation."

Mr. Stratford, we perceive, has dedicated his work to Mr. Guthrie, conjointly with Mr. Reed, the Treasurer of the Westminster Eye Infirmary, and Sir J. Macgregor. From this circumstance, and from the frequent allusion to Mr. Guthrie, we expected to find some observations upon "certain methods of treating acute and chronic inflammations of the eye, lately adopted at the Royal Westminster Ophthalmic Hospital." However, we do not find that our author sanctions the "certain methods," on the contrary, alluding to the use of a strong solution of nitrate of silver, in the commencement of acute purulent inflammation, he tells us, that he should hesitate to employ it. So would any rational practitioner.

To conclude.—Mr. Stratford's book is evidently the production of a practical man, who writes from what he has seen; hence the descriptions of the various diseases are accurate, and the plans of treatment recommended highly appropriate. The student will find it highly useful. We are sorry that we cannot extend our praise to the plates; without the text, it would be difficult to say what they were intended to

represent. The author will do well also, in the next edition, (which we believe will soon be called for) to correct the numerous typographical errors which exist. In looking through the volume, we almost constantly find mucus, written for mucous, erysipelatus for erysipelatos, vitreous for vitreous, tenea for tinea, and so on.

LONDON MEDICAL SOCIETY.

October 13, 1828.

Dr. HASLAM, President, in the Chair.

PERICARDITIS IN A BULLOCK.—THE DOUBLE UTERUS.—TREATMENT OF PUERPERAL MANIA AND DELIRIUM TREMENS.

The Minutes of the last meeting were read.

Mr. LLOYD produced the heart of a bullock, which showed, in a very marked manner, the effects of *pericarditis*. A large quantity of lymph had been deposited on the surface of the organ, which had afterwards become organised. The organisation was put beyond all doubt by an injection thrown into the arteries. Vessels, the length of an inch, were traceable in the newly-formed substance. The specimen furnished evidence also of inflammation having existed in the internal lining of the heart. Circumstances had prevented him from getting so accurate a history of the case as he should have wished, but he promised to ascertain, if possible, whether, at the time the animal was slaughtered, it appeared in good health, and whether the loose pericardium exhibited the same appearance when first seen, that it did when shown to the Society.

Dr. STEWART read a paper from a visitor at the former meeting, containing observations on the history of the *double uterus* case detailed by Mr. Waller.* The writer of the paper considered that bleeding, in the treatment, would have been preferable to the large doses of opium which were exhibited; the opium, he thought, aggravated the circumstances. The great distension of the uterus prevented its contraction. It frequently happened that a person could not empty his bladder, though it was highly charged; this arose from the over-distension of its parietes, and

* Vide our last Number, p. 55.

was usually at once relieved by the application of leeches, or general bleeding, and the use of the warm bath. The ossific patches appeared to have been of a chronic nature, and could not have been the cause of death.

Mr. WALLER never alleged that they were. The large doses of opium were not given till three days after the administration of the *secale cornutum*, so that the effects of the former could not have counteracted the efficacy of the secale. He was not called to the patient till after she had laboured under the attack for twenty-four hours. The case was not a decidedly opium one; the countenance was flushed and excited, but the pulse was thin and compressible. From what he had ascertained subsequently, he believed he should have applied leeches, particularly if he had seen the case earlier; but, under the circumstances, the attendants were afraid of venturing on the antiphlogistic plan.

A MEMBER knew a case very similar to the one under discussion, in which bleeding was resorted to, with complete success, after the exhibition of a second dose of opium. Dr. Blundell had seen this case, and agreed with the practitioner, in attributing the beneficial result to the effect of the bleeding.

Mr. LLOYD wished to know, whether the antiphlogistic plan was the best to be resorted to in *puerperal mania*.

Mr. WALLER considered, that this question could only be answered affirmatively or negatively upon a review of the patient's condition in every particular case. Should there exist much vascular power and action, the treatment would have to be of one character,—should there be much weakness and irritability, of the opposite.

Dr. SHEARMAN had often heard bloodletting denounced in *delirium tremens*, and he thought too strong an inclination obtained in the profession, rigidly to adhere either to the use of opium, or bloodletting. He had certainly often seen bloodletting improperly used in *delirium tremens*; but had he a case under his care at that moment, marked by the ordinary symptoms, he should resort to it. Bloodletting and opium, combined, had been had recourse to beneficially.

The PRESIDENT, though he believed it to be irregular for him to take any part in the debate, yet having been politely requested to express his opinion upon *puerperal mania*, complied. He had certainly had very considerable experience in the treatment of it, and he had universally found, that when he had given opium, it produced ill effects, and materially retarded recovery. Much service might be done by the application of leeches, cold to the head, and blisters to the

calves of the legs, or sinapisms to the feet. Under this plan of treatment, patients generally recovered. Every insane attack had a certain duration to continue; a fever could not be cut short; and from the water found, either in the cavities of the brain or between the membranes covering it, in those who died of this malady, it was fair and rational to infer, that considerable inflammation had existed in those parts. Opium was given with a view to procure sleep, but sleep was not required; if it were procured, the patient afterwards awoke in a two-fold state of excitement. Many years ago he had made a calculation, by which he found there was no form of mania from which so many recovered, as that of *puerperal*.

Dr. RYAN did not look upon *delirium tremens* as depending upon vascular congestion, but as the effect of nervous excitement; and felt firmly persuaded, that the best remedy was the administration of stimuli; also, that the best description of these was, the ardent spirit the patient had been in the habit of drinking. This ought to be given in small quantities, the quantities, however, to depend upon the effects; the effects being to be carefully watched.

Mr. CALLAWAY had used stimuli and bleeding simultaneously, with success.

Mr. TYRRELL, in the course of his hospital practice, had, on various occasions, administered to patients their habitual stimuli to the extent of a quart of porter and two glasses of gin, nearly the whole of it swallowed at one draught, with the best possible effect, and in those cases too, where, from the most rational prognosis, the patients were sinking, and must have sunk under any other treatment.

MEDICO-CHIRURGICAL SOCIETY.

ON Tuesday last, October 14, the meetings of this society were resumed, Mr. TRAVERS, President, in the chair. The meeting was well attended.

An interesting paper, by Mr. ARNOTT, on the secondary effects of veins, was in part read; in which the author, after enumerating the different well-authenticated cases on record, of inflammation of the veins, and others which had come under his own observation, produced by wounds, and terminating fatally, proceeded to show that death does not take place, as some have asserted, by extension of the inflammation to the heart. A conversation, however, ensued, from which we infer that it was the author's object to show, that the secondary effects of phlebitis arise from the introduction of pus,

or inflammatory secretions generally, from the surface of the veins into the circulation.

Mr. TRAVERS observed, that, as in several cases which he had an opportunity of examining, the affected veins were filled with lymph to a greater or less extent, and consequently, as pus could not get into the system, it might, he thought, at least, be considered as negative evidence, that the introduction of pus into the system could not be considered as the cause of death. But as it appears that this, among other points, will come under the consideration of the society at their next meeting, we purposely defer giving an account of the proceedings, until we have heard the whole of the author's communication.

The paper excited considerable interest.

ST. BARTHOLOMEW'S HOSPITAL.

List of Patients admitted under the care of Mr. Lawrence, Oct. 9.

Henry the Eighth's Ward, No. 1.—Richard Russel, *ætat.* 67, ascites.

No. 2.—John Cotterell, *æt.* 22, swelling of the cervical glands, with ulceration.

No. 6.—John Jackson, *æt.* 24, chancre, enlargement of the glans, and superficial ulceration between the toes of both feet. Syphilitic?

No. 10.—John Dulforce, *æt.* 56, inflammation of the wrist.

No. 11.—Henry Batter, *æt.* 9, group of furunculi on the back.

(*The back Ward.*)—No. 4.—Edward Ranger, *æt.* 48, bad leg.

No. 7.—Henry Jones, *æt.* 30, varicose tumour in the left axilla.

No. 8.—Joseph Birch, *æt.* 47, ulceration, with much inflammation of both legs.

No. 9.—George Holmes, *æt.* 30, bad eye and throat.

No. 11.—Henry Thomas, *æt.* 11, scrofulous enlargement of the right knee-joint.

Baldwyn's Ward, No. 5.—John Magellan, *æt.* 60, fever, and bad leg.

Darker's Ward, No. 7.—Lee, *æt.* 28, bad leg.

Powell's Ward, No. 2.—John Saunders, *æt.* 58, ulceration of both legs.

Luke's Ward, No. 19.—John Doyle, *æt.* 9, diseased spine.

Lazarus's Ward, No. 2.—J. D., *æt.* 20, gonorrhœal discharge, with inflammation of the lining of the prepuce.

No. 8.—J. S., inflammation of the prepuce, with purulent discharge, and warts. Swelling of the wrist and hand, with pains in the limbs.

No. 10.—J. T., *æt.* 24, ulcerated glans.

No. 6.—Henry Bainbridge, *æt.* 49, ulceration of the glans.

No. 9.—J. H., *æt.* 33, gonorrhœa, chancre on the frenum of the glans penis, and swelling of the right inguinal glands.

Faith's Ward, No. 8.—A. K., *æt.* 19, ulceration of the right tonsil, and superficial ulceration of the right eye.

No. 25.—Hannah Duper, *æt.* 26, inflammation of the knee.

Patience's Ward, No. 2.—H. M., *æt.* 16, chancre, buboes, and papular eruption over the whole body.

No. 7.—S. P., gonorrhœa, with excoriation and ulceration of the labia, and inside of the thighs.

Magdalen's Ward, No. 1.—M. I., *æt.* 21, gonorrhœa, with large bubo in the left groin, and ulceration in the vagina.

No. 2.—M. W., *æt.* 18, gonorrhœal discharge, ulceration and excoriation within the labia, on the perineum, and inside of the thighs.

No. 11.—S. C., *æt.* 23, large phagedenic ulceration of the upper lip and left cheek, chronic conjunctival inflammation of the left eye, and the left upper eyelid destroyed by phagedenic ulceration.

No. 12.—A. H., *æt.* 21, gonorrhœal discharge, large ulcers at the entrance of the vagina, and a small indurated sore on the right nymphæ.

CASE OF FRACTURED SKULL, WITH EXTRA-VASATION, TREPHINING, AND DEATH.

William Brown, *ætat.* 30, strong and muscular, an ostler, was admitted into Colston's Ward, under the care of Mr. Vincent, on Sunday afternoon, October 5, at half past two o'clock, with extensive laceration of the scalp over the right parietal and temporal bones, the right parietal bone being denuded of its periosteum, to the extent of two inches in length from behind, forward, and one inch in breadth, with slight apparent fracture; also with fracture of the superior maxillary bone; considerable epistaxis. He was perfectly sensible when brought in, and was soon afterwards able to state, that, having seen a boy, in the act of exercising a horse in Goswell Street Road, thrown off, the animal having taken fright, he endeavoured to stop the horse, and caught hold of the bridle; but, not succeeding in his object, he was thrown down, and thought he must have been trodden on by another horse that had also run away, but could recollect nothing more of the accident with distinctness. It appeared, however, that, having maintained firmly his hold of the bridle, he was dragged a considerable distance, and in all probability kicked by the same horse. The edges of the divided scalp

were drawn together by adhesive straps, and cold cloths applied to the head. The hæmorrhage, from the nose and mouth, continued for four or five hours, and was at length, with difficulty, restrained. The bowels acted soon after admission.

6. The face enormously swelled; both eyes are completely closed; complains of pain in the head and back of the neck; perfectly sensible; experiences great difficulty in swallowing or speaking. Mr. Vincent thinks it probable, from the symptoms, that the fracture of the skull extends to the base. Cal. gr. iv., jalap gr. xv. statim, an enema of house medicine, and poultices to the head. Pulse rather feeble, 96.

7. He passed a much worse night than the previous one; skin hot; pulse full, and about the same number. The bowels have been freely moved. Complains much more of pain in the head. In the course of the afternoon became delirious, and extremely outrageous, so as to require the strait-waistcoat.

8. Ten o'clock, A. M. In the course of the night, insensibility gradually came on; his breathing is stertorous; pupils dilated, and uninfluenced by light; pulse 84, and not so full as yesterday; fæces passing involuntarily, and the wound of the scalp presenting a green, shining, and unhealthy appearance.

Half past one, P. M., Mr. Stanley, officiating for Mr. Vincent, ordered as much blood to be taken from the temporal artery as the pulse would bear. Thirty ounces have, therefore, been taken from it, and the pulse has risen to 125, but is smaller than before, and easily compressed. — Four o'clock. The dangerous symptoms not being at all abated by the bleeding, Mr. Stanley considers the use of the trephine called for. Mr. Earle, happening to be present, coincides in this opinion. The patient was immediately, therefore, removed to the operating theatre, where Mr. Stanley proceeded to apply the trephine, in the situation of the fracture, over that portion of the parietal bone denuded of its periosteum. On the portion of bone being removed, a thin stratum of coagulated blood was detected between the cranium and dura mater, which appearing to extend downwards and forwards, and the patient experiencing no relief from the operation so far, it was deemed proper, by Messrs. Earle and Stanley, that the trephine should be applied again. It was applied in the direction of the inferior anterior angle of the parietal bone, and Hey's saw used to remove the projecting triangular portion left between the two circular openings made by the trephine. Unfortunately, the coagulum was found to extend still deeper towards the basis cranii, and no relief whatever was

produced by the operation. The man died in two hours and a half after the performance of the operation.

Post-mortem Examination.

1. At half past one the post-mortem examination was made, and conducted by Mr. Stanley, and Mr. Burnett, the house surgeon. On removing the skull-cap, the vessels did not appear greatly turgid. A thin coagulated stratum of blood extended downwards from between the parietal and temporal bones and dura mater, to the basis of the skull. A considerable portion of puriform fluid was effused between the arachnoides and pia mater, over the anterior hemispheres of the brain, and the same observed at the base of these portions. Two or three small softened patches were discovered in the substance of the brain, on the anterior parts of both hemispheres. The substance of the organ exhibited no particular vascularity or traces of inflammation. The ventricles contained a very considerable quantity of turbid fluid, apparently of a purulent quality. The fracture was of the parietal bone, through the temporal process of the sphenoid, that portion forming the cerebral fossa to the sella turcica, and from thence to the ethmoid bone. The crista galli was likewise completely separated, and only kept in contact with the cribriform plate, by the attachments of the dura mater. The right superior maxillary, and also the nasal bones, were fractured very considerably. The abdominal viscera presented nothing remarkable.

[Why was not the patient bled on the seventh? Was the treatment adopted in this case, calculated to instruct the pupils in "sound surgical?"—E. L.]

ST. THOMAS'S HOSPITAL.

FEMORO-POPLITEAL ANEURISM.—OPERATION OF TYING THE FEMORAL ARTERY.

JANE GROOVES, of rather a full habit, and bloated appearance, was admitted into Ann's Ward on the 11th of September, under the care of the Junior Surgeon. She stated, that, for three weeks past, she had felt a pain in her thigh, which she considered to be of a rheumatic kind, and, on that account, used friction, with turpentine liniments. The pain was felt on the inner side of the thigh, and it extended to the ham. About a month back she felt a small tumour, just where the pain had commenced: this rapidly increased, and was attended with a throbbing sensation. In a week after the appearance of the tumour, the lower part of

the thigh began to swell; the swelling rapidly extended, but was circumscribed, and soon became very prominent in the centre; it pulsated very strongly—indeed so much so, as to be clearly visible. On applying the stethoscope, the rush of blood into the aneurismal sac was distinctly heard. The pain was now exceedingly acute, and progression, or the least movement of the limb, was prevented.

When admitted, the tumour was of very large size, situated upon the inner and lower third of the thigh, and extending into the ham, where it could be felt to pulsate. Pressure upon the artery in the groin stayed the pulsation, but did not much diminish the size of the tumour. The patient was ordered to keep her bed, with the limb flexed, and placed upon its outer side. Aperients to be given occasionally.

25. Since the patient has been in the hospital, the tumour has very much increased in size, but the pulsation is less distinct, and, in the ham, can scarcely be felt at all. The skin has become of a livid-brown colour, and, at a particular spot at the lower part of the tumour, it appears about to burst.

26. The operation of tying the femoral artery was performed to-day. A considerable time elapsed in finding the vessel, but it was at length secured with one ligature. After the operation, a flannel stocking was put on the leg.

27. The patient has had no sleep, but is tolerably easy. The pulsation of the tumour has entirely ceased; the limbs are nearly of equal temperature; there is slight tingling felt in the integuments of the diseased limb.

29. Much the same; obtains no sleep; ordered 40 drops of laudanum at bed-time.

October 7. The patient is, upon the whole, going on well; the wound is healing, and the tumour is gradually diminishing. The ligature has not yet come away.

HOPITAL DE LA PITIE.

CASES OF HERPES ZOSTER, SUCCESSFULLY TREATED BY THE NITRATE OF SILVER.

Two cases of zoster lately presented themselves, in which the external use of the nitrate of silver proved very effectual in allaying the violent pains with which this affection is usually accompanied.

A girl, twenty-one years of age, was, on the 16th of July, admitted into the Salle S^e Thérèse; she had been seized, after a few days of general indisposition, with a violent burning pain on the skin of the ab-

domen; on the ensuing day, a very troublesome itching succeeded, and this was followed by an eruption of small vesicles, surrounded by a red margin, and filled with a limpid water. These vesicles rapidly increased in quantity, and, at last, occupied the right half of the abdomen from the median line to the vertebral column. The patient had some headach, nausea, &c., but her principal complaint was the violent pain caused by the eruption, which deprived her of all rest. On the 18th, the vesicles were opened with a needle, and afterwards touched with the arg. nit. fus.; at first the pain was increased, but after three hours the patient fell into a sound sleep, and, on the following day, was entirely free from pain; the eruption had changed into a dry crust, which was gradually detached, so that, on the 25th, the patient was discharged cured. The gastric symptoms, by which the disease was accompanied from its commencement, did not seem to be influenced by the external treatment of the eruption.

In the same ward, a similar case occurred in a girl of nineteen; she was taken with a gastric affection, which was quickly followed by a zoster-like eruption on the right side of the chest, extending circularly from the anterior part of the right breast to the vertebral column. The inflammatory ring, around the phlyctenæ, was not so vivid as in the former case, nor was the pain so very violent. The eruption was touched with the nitrate of silver, an eschar was formed, and the patient was enabled to leave the hospital in four days.—*La Clinique*.

HOTEL DIEU.

HYDATID TUMOUR OF THE ABDOMEN.

— MARCO, ætat. 33, of a melancholy temperament, observed, in the month of May, a swelling in the epigastric region, which gradually augmented, without being accompanied by any pain or disturbance of the system. From the beginning of June, the swelling considerably increased, and caused lancinating pains; the patient, from this time, began to vomit everything, a quarter or half an hour after swallowing it. On the 20th of June, he entered the hospital. The swelling occupied the epigastrum, was of a considerable size, and very painful; there was no fever or jaundice; the vomiting continued; the bowels were costive. Under the use of leeches, the warm bath, and castor-oil, some improvement was obtained. After repeated examinations, it was found that the enlargement was circumscribed towards its inferior margin, and, on percussion, a sort of trembling (*frémissement*) was felt, by which M. Recamier was led to suspect the existence of

hydatids in the tumour. An exploratory acupuncture was now made, and the watery fluid, which issued from the wound, confirmed M. Recamier's diagnosis. A piece of caustic potash was now repeatedly applied to the tumour, in order to occasion adhesive inflammation; violent pain and fever were produced, and the linea alba was laid bare by an incision, from which nearly six ounces of a turbid serum were evacuated, and twice the quantity was discharged in the course of the following day. By the use of emollient injections, the artificial aperture was kept open, and from it a serous liquid, with hydatids, and, lastly, the parietes of the cyst itself were discharged. The tumour gradually decreased, the pains disappeared, the bowels became regular, and the patient had nearly regained his health at the time of the report.—*La Clinique.*

MR. LAWRENCE.

To the Editor of THE LANCET.

SIR,—When an individual has performed public services at the expense of great private sacrifices, surely it is right that he should be cheered and rewarded by some public mark of approbation. The surgical reformers have not yet done this, I may say, act of justice, to Mr. Lawrence. The manner in which that gentleman came forward and vindicated the rights of the degraded members of the College, is fresh in the recollection of us all—neither can we forget that Mr. Lawrence himself was, at the same time, one of the *privileged order*—a hospital surgeon, consequently one who suffered nothing, but, on the contrary, was a gainer by the infamous by-laws, and the system which gave rise to them. Such a noble example of disinterestedness, and regard for the interests of science, must not pass unnoticed. It is said that the "praise of honest men is fame;" let us tender such praise to Mr. Lawrence. Conversing with some friends a few days since, it was suggested that a public dinner should be given by the surgical reformers to Mr. Lawrence. However, previously to adopting any measures to effect that object, I feel it desirable to obtain your opinion upon the propriety of the measure, and also that of my professional brethren.

I am, Sir,
Your obedient servant,
A PRACTITIONER AND SURGICAL
REFORMER.

London, October 3, 1828.

[The measure shall receive our most decided support.—ED. L.]

GLASGOW ROYAL INFIRMARY.

REPLY TO MESSRS. WOOD AND CO.

HYDROCELE NO HERNIA.

To the Editor of THE LANCET.

SIR,—The letter of Messrs. Wood, Lorrain, and Newlands, published in a late Number of your Journal, perhaps scarcely merits a reply. I have, however, been induced, from the bold assertions which they make, and the intemperate language they employ, to send you the following observations:—

Messrs. Wood, Lorrain, and Newlands, state themselves to have copied the case accurately from the journal of the Infirmary; but they forget, that although this had, in truth, been the case, which is all they seem to contend for, it by no means necessarily follows, that the account I gave was incorrect. Of the latter, indeed, they cannot be expected to form any opinion, since none of them, I can almost positively affirm, saw the child on its coming into the hospital, nor was one of them present at the operation, nor even afterwards (unless I am very much mistaken) did they often see the patient.

I WAS DRESSER to the patient, and, naturally enough, asked the mother some questions concerning the history of the disease. It was from her account, and my own observation, that I was enabled to furnish you with the particulars, which, drawn up as they were, from what was said and what was seen, are quite as likely to be true, in the opinion of any unprejudiced person, as the report in the hospital journal.

In the report of the case in THE LANCET, I have said there was no tenderness over the abdomen, or in the parts, which, however much it may differ from the abstract given you by Messrs. Wood, Lorrain, and Newlands, I still maintain to be true; for although I should hope that neither the gentleman who wrote out the case, nor the surgeon under whose care it was placed, is capable of wilful misrepresentation, still I cannot reject the evidences of my own senses. I placed my hand on the tumour and pressed, but the child evinced no sign of pain or uneasiness, either by cries or restlessness, which it would most undoubtedly have done had either existed.

I have also said the patient was not feverish, which seems to be at variance with the report of the case in the journal of the house. The child was, as might be expected, very unwell; but whether or not it was fever, is a different question. Allowing this, however, to be true, I thought then, and still think, if it did at all exist, that it

was not to such an extent, as we usually find attendant on a strangulated hernia, requiring an operation. Indeed, it comes to be a mere matter of opinion, whether the child was really labouring under *fever*, as is described in the journal of the hospital, or only under a high degree of *irritation* consequent on the presence of worms, and the constipated state of the bowels.

I was in the same ward with the child on the day of the operation nearly two hours, and, during that time, there was neither hiccup nor vomiting, which does not disagree with the statement of Messrs. Wood, Lorrain, and Newlands; although they, in one part of their letter, most disingenuously insinuate some doubts of its truth.

The mother informed me there was no want of stools; but this she, a day or two afterwards, contradicted. It was then I thought it necessary to correct what I had said, which correction Messrs. Wood, Lorrain, and Newlands, will find stated in THE LANCET of the 2d of August, in the following words:—"I must state, that in the report of the case in the journal of the Royal Infirmary, it is said the child had no stool for eight days, saving one immediately previous to the operation, from a clyster, and which was very copious."

The report of Messrs. Wood, Lorrain, and Newlands, goes on to say, that at five P. M., a consultation was called. This passage evidently shows how little they know of the case concerning which they write in such confident terms; for, at two P. M., Messrs. Hendry, Smith, and myself, were informed, through the kindness of one of the clerks, that a consultation was to be held at six, thus showing, if the consultation was called at five, it was, at least, predetermined, and not owing to the symptoms of the *hernia* having become more urgent.

I have stated that there was "no regular attempt at the taxis, and its adjuvants, bleeding," &c., neither do Messrs. Wood, Lorrain, and Newlands. They, indeed, say the taxis was tried by both the attending surgeons, but they forget to mention how long it was continued, or if they consider a man justified in operating for hernia, if, after pushing at the tumour for a few minutes, he fails to move it, *unassisted by bleeding, the warm bath, or nauseating medicines*. The employment of these, in addition to the mere manual operation, constitute, I believe, what is called, a *regular attempt at the taxis*.

When I sent you the report in question, I did not conceal my name on account of any fear of the consequences that might result from its inaccuracy; but, from my intention of sending you future communications, I was not very anxious that I should be

known as the writer. For the same reason, the report is written as if I had not been at the operation. I was so; but there being only two other students, Messrs. Hendry and Smith, besides myself, present, it would have been equivalent to such an acknowledgment had I said so.

I have now stated all I know about the case; the statements of the journal I will never attempt to reconcile with mine. I will not say the former are false; the mother may have given a different statement from what she gave me; but even although the reports had differed much more than they do, I would not have corrected one iota of what I have advanced, unless convinced that what I advanced was unfounded; and had this been the case, it would, long before this time, have been publicly declared. I may also mention, before concluding, for the satisfaction of your readers, that no authority, however much I may respect it, will ever induce me to deny what I heard, and what I saw.

I am happy to add the testimony of Mr. Smith to what I have said, who was *dresser* in the hospital at the time, and present at the operation.

"Glasgow, Sept. 27, 1828.

"DEAR SIR,—In your letter of yesterday, you desire me to state what I know of the unfortunate case of *hydrocele*, which was lately operated on in the Glasgow Royal Infirmary, for *strangulated hernia*.

"I was in the same ward with the patient, for a considerable time immediately previous to the operation, and, during that time, did not see him vomit. The stool which he then had appeared to be *natural*. When the surgeons handled the swelling, the child did not appear to be uneasy; and, although the boy was very unwell, my impression, at the time, was, that there were few, if any, of those symptoms present, which are said, in surgical works, to characterise a case of *strangulated hernia*, requiring an operation.

Yours, truly,

S. B. SMITH."

"Mr. J. W. Macnee.

Hoping this will convince you, and your readers, that I have stated nothing that was either untrue or unfounded,

I am, Sir,

Your very obedient servant,

J. W. MACNEE.

Glasgow, Sept. 29, 1828.

[The reply of Mr. Macnee to Messrs. Wood and Co. is so very conclusive, that we do not deem it necessary to publish the spirited and excellent letter of Mr. Thomas Carter.]

HOLE AND CORNER WORK AT BIRMINGHAM.

To the Editor of THE LANCET.

SIR,—As a constant reader of your valuable Journal, I have noticed, with feelings of admiration, the bold and determined manner in which you have dragged from its hiding place corruption of every kind, whether existing in the proud college (whose charter seems to make it more impudent in its mal-practices) or the less arrogant hospital; but amidst all the attempts at reformation, I feel astonished that Birmingham (with a slight exception) should have escaped your investigation, whether from the limited opportunity you have of hearing from that town, or the little interest you imagine your brethren might derive from your reports, I know not; but it is time something was said and done. The base system of monopoly and humbug, carried on within the walls of our Hospitals, deserve exposure, and the severest lash a liberal and independent press can bestow.

It is now about four years since that an attempt was made to erect a Fever Hospital in this town, and the mover of the praiseworthy scheme was Dr. Birt Davies, an individual whose indefatigable exertions in behalf of so good an institution, cannot be too much applauded, and a man, whose moral character and liberality of sentiment must endear him to all his acquaintance. But the moment the proposition was made public, away went the "medical officers" of the General Hospital to oppose, with might and main, an object undertaken by one not belonging to their "junto." Vituperation, and sophistical arguments, were employed to prove, that a fever hospital was absolutely unnecessary, and for a length of time (not, perhaps, in consequence of their opposition) the matter was unheard of; but a fund having been raised, and a house taken, the establishment was set on foot, and, during the four months it has existed, fifty individuals have been restored to their families. I have visited it myself frequently, and declare that its cleanliness, the attention of its physician, and the freedom of access afforded to all, are unexceptionable.

In consequence (I presume) of another paroxysm of rage felt and made manifest by the "junto," Dr. Davies addressed a letter in *Aria's Birmingham Gazette*, Sept. 29, 1828, to the "Benefactors and Subscribers of the General Hospital, Birmingham," and to that letter I beg leave to call your attention. After stating his exertions, and the opposition he met with, and, moreover, the wish of the "rulers" of the Gene-

ral Hospital now to erect a fever house as an opponent to his, the Doctor proceeds:

"But, Gentlemen, can it be your pleasure to sit still, and to witness so foul a piece of oppression, and so gross an appropriation? It is not ten months since we heard the note of distress and of embarrassment at the General Hospital, and I venture to predict, that it will not be ten months more before we hear the same again; and the present extravagance will doubtless afford a pretext for raising the pitch. It is no longer ago than last spring, that it was requisite to make a strong appeal to the dissenting interests of the neighbouring districts, (and it has been replied to in a manner worthy of their liberality,) yet this is scarcely done before it becomes time for another gratuitous expenditure. If the premises occupied by the existing Fever Hospital were insufficient for the wants of the town, (which is not the case, as it could accommodate fifty beds more if it had the means to furnish them,) the public would only smile, that men, so little acquainted with its wants, should formerly have presumed to thrust forth their crude, unsought, inaccurate opinions. If the situation of the General Hospital were as good as that of Holloway Head, the highest and most open in the adjacent neighbourhood, which it is not, even then a conjunction, opposed to the intention of the founder, contrary to the laws of eight-and-forty years, at variance with the whole system of an establishment admitting disease only upon a Friday, would be intolerable and indecent. If one single reason could be guessed at beyond the indulgence of an unworthy and degrading spirit, it would, perhaps, have been the best, as it would surely be the most tranquil course, for me to submit in silence. But to see the resources of a great and noble institution perversely expended to crush silently, by its competition, a smaller charity, which has struggled hard into existence against a thousand indirect and unfair attempts to strangle it, is, indeed, "too bad."

Let the Governors look acutely to every part of the expenditure; let them reflect on the huge income of a rent-free, tax-free, establishment. Compare the good done with other hospitals, and remember their own recently-abridged privileges. Above all, they should let in the light of day; and, taking example by the humbler hospital, which their servants seek to extinguish, let them give daily admittance, at a regular hour of visit, to every licensed practitioner, that a free press may come in to hear, see, criticise, and benefit the patients, the profession, and the public, as well by the dexterity as by the bungling of those who now

seem to manage an absolute and irresponsible monopoly.

In concluding, I beg to apologize for intruding myself upon your attention. If I consulted my own case, it would perhaps have been better to submit quietly than to afford a pretext for vituperation, virulence, and private injury. Any one addressing you on the subject, must be prepared to encounter again, one by one, the delegates of the 'weekly club'—again advertising at the expense of the 'Joint Stock Purse.'

The Doctor concludes by saying,—

"Be it as it may, no private consideration on earth shall induce me to permit this transaction to pass without making, at least, one endeavour to hold it up to the reprobation, contempt, and failure which it merits, and I call on an indignant public to support the House of Recovery, or General Fever Hospital, at Holloway Head."

Considering, Sir, that THE LANCET has the most extended sale of any medical publication, and deeming it necessary that the evil doings of our "Hole and Corner" Gentlemen should be circulated far and wide, I have been induced to trouble you with the few scattered ideas in this sheet. The corrupt, the secret, the unhandsome manner, in which the surgeons of our Hospital (except Mr. Wood) carry on their dark doings, is abominable; and I shall rejoice when, through the interference of some benevolent individual, the doors shall be opened to show the "hell that's there." At present, surmise does all: we know not, when a poor wretch is immured within it, whether his case be treated with common humanity, or whether he will ever be allowed to revisit his friends or family. Well does it correspond with the description of the Mantuan bard:—

"—— Facilis descensus averno
Sed revocare gradum——
Hoc opus, hic labor est——"

The medical and surgical school opens here on the 20th inst., and then, probably, some concession may be made, at least to students, which will afford an opportunity of supplying, perhaps, a few cases to your Journal, and demonstrate, with a veracity not to be doubted, that "men love darkness better than light, because their deeds are evil."

Until that time, Mr. Editor, I shall probably not trouble you again; but if I can afford you any information respecting either of our Institutions, I shall be most happy to do so, as far as my humble abilities will allow; and I trust, ere many years elapse, we shall see the names of Hodgson, De Lys, and Vaux, coupled with liberality and openness of conduct; and of knowing, that though an individual may be trampled on

by the creatures of power, he will rise superior to all their machinations, and that, in after time, the name of Davies will be gratefully recollected by many, who have been rescued from the grave in our laudable and infant charity.

I remain, Sir,

Faithfully your's,
CRITO.

Birmingham, Oct. 8, 1828.

ABUSES AT ST. BARTHOLOMEW'S.

To the Editor of THE LANCET.

SIR,—The many morbid practices which the judicious application of THE LANCET has tended to remove in this, as well as in other metropolitan hospitals, induces me to lay before you a grievance, which, however trivial it may appear in the eyes of the multitude, is, I can assure you, of no light sufferance to the parties aggrieved, viz. the dressers.

You are, doubtless, aware, it is an existing custom at St. Bartholomew's Hospital, for the dresser, whose accident-day it may chance to be, to remain at his post from 9 A.M. to 9 P.M. Though this custom is with propriety rigorously enforced, yet so little attention is paid to the comfort of the dresser on duty, that no part of the establishment superior to the square of the Hospital, under the broad canopy of heaven, or in the wards, with the select society of nurses and patients, is assigned to him during the period of his now frequently-unoccupied time; time which, had he a room afforded him, might be spent much more to his advantage, certainly more to his comfort.

I understand that it was formerly the custom for the dresser on duty to make use of an apartment in the house of an inferior officer whose *tugaries* you have lately had occasion to notice; but this privilege has, for some unaccountable reason, been withdrawn, and the dresser left a wanderer on the site of the Hospital.

Should your insertion of this be attended with a removal of the grievance, you will, Sir, have a yet stronger claim to the gratitude of

A DRESSER.

St. Bartholomew's Hospital,
Oct. 12, 1828.

BOOKS RECEIVED FOR REVIEW.

A Translation of the Pharmacopœia of the King and Queen's College of Physicians in Ireland, with Notes and Illustrations. By D. SPILLAN, A.M., M.D. 8vo. boards, pp. 293. Dublin. Hodges and Smith.

Remarks on the Treatment of the Insane. By E. P. CHARLESWORTH, M.D., with a plan of the Lincoln Lunatic Asylum. 8vo. pp. 38. London. C. and J. Rivington.

A Letter addressed to His Excellency the Right Honourable General the Earl of Chatham, Governor of Gibraltar, &c., relative to the Febrile Distempers of that Garrison. By W. W. FRASER, Esq., Inspector of Hospitals and Medical Superintendent of Quarantine at Gibraltar. London. Callow and Wilson. 8vo. 1826. pp. 49, with Tables.

A Manual on Midwifery; or a Summary of the Science and Art of Obstetric Medicine; including the Anatomy, Physiology, Pathology, and Therapeutics, peculiar to Females; Treatment of Parturition, Puerperal, and Infantile Diseases; and an Exposition of Obstetrico-Legal Medicine. By MICHAEL RYAN, M.D., Member of the Royal Colleges of Surgeons in London and Edinburgh. London. Longman and Co., 1828. 12mo. pp. 354.

An Analytical Index to the New Lunatic Act, for regulating the Care and Treatment of Insane Persons in England. London. Kirton, 1828. 8vo. pp. 42.

An Essay explanatory of a Method whereby Cancerous Ulceration may be stopped, by the Formation of Crusts and Granulating Margins; together with Observations and Directions for the Treatment of other analogous Diseases and Diseased States, consequent to, and attendant upon, Cancerous Ulceration. By WILLIAM FARR, Surgeon to the Cancer Institution, Charlotte Street, Bloomsbury, &c. London. Wightman and Cramp. 8vo. pp. 80.

An Introductory Lecture delivered in the University of London, on Thursday, Oct. 2, 1828. By JOHN CONOLLY, M.D., Professor of the Nature and Treatment of Diseases. London. J. Taylor. 1828. 8vo. pp. 34.

A General Description of the Bones of the Skeleton, intended for the use of Students. By HENRY KEMP RANDELL, M. R. C. S. 12mo. boards, pp. 144. London. Highley.

A Stethoscopic Chart; in which may be seen, at one view, the application of Auscultation and Percussion to the Diagnosis of Thoracic Diseases, and the use of the Stethoscope in other Diseases. Arranged by S. E. HOPKINS, M. R. C. S.

This Chart is an admirable guide to the use of the stethoscope; and we can with confidence recommend it to the notice of our readers.

Statement of Facts respecting Dr. William Preston Lauder, now of 91, Sloane Street, Chelsea, formerly of Wallingford, Reading. Hancock, Holborn. Cupar of Fife, and Edinburgh. 8vo. pp. 39. stitched.

LITERARY NOTICE.

Mr. Richards is preparing for the press, a Treatise on Nervous Disorders; with Observations on Physical Sympathy, and a Dissertation on the best Dietetic and Medicinal Remedies.

SUBSCRIPTIONS

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Grantham, Oct. 5, 1828.